

Fig. 1A PRIOR ART

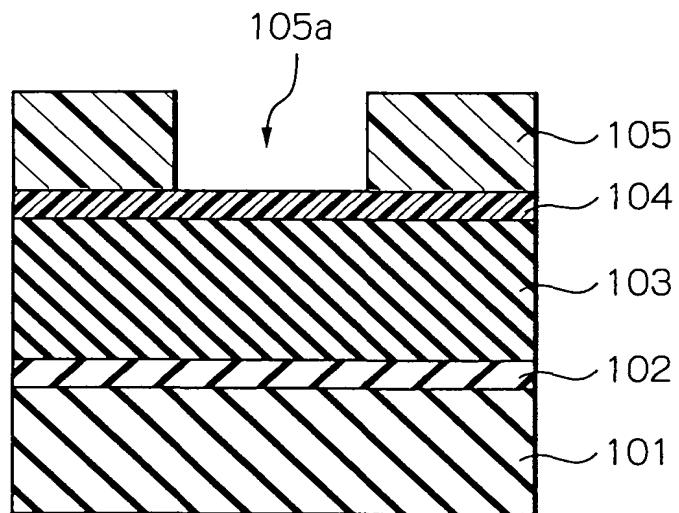


Fig. 1B PRIOR ART

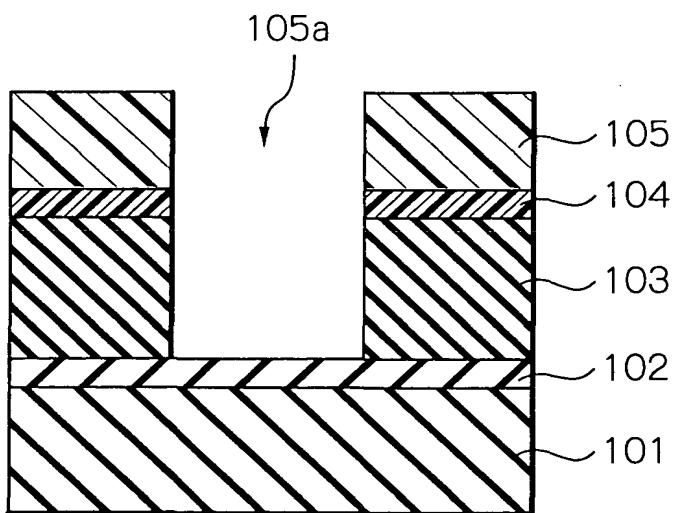


Fig. 1C PRIOR ART

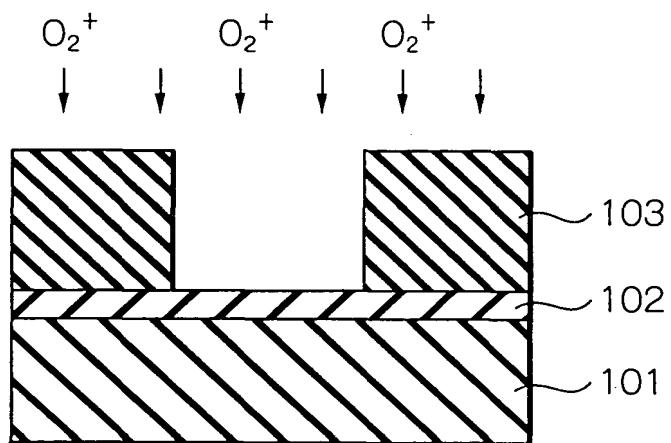


Fig. 1D PRIOR ART

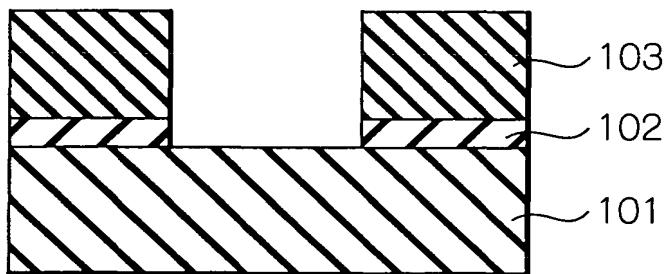


Fig. 1E PRIOR ART

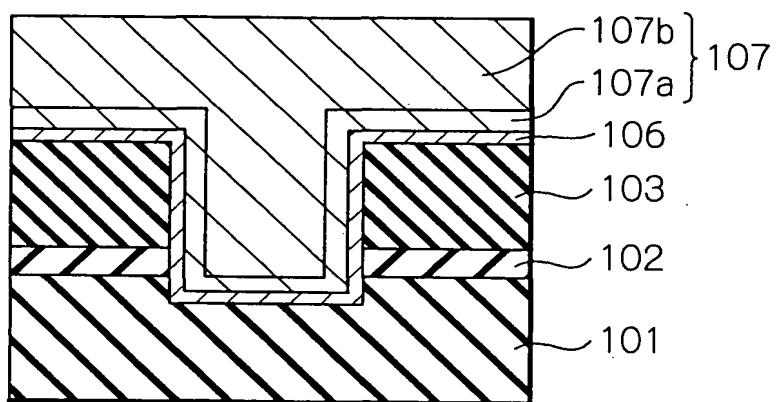


Fig. 1F PRIOR ART

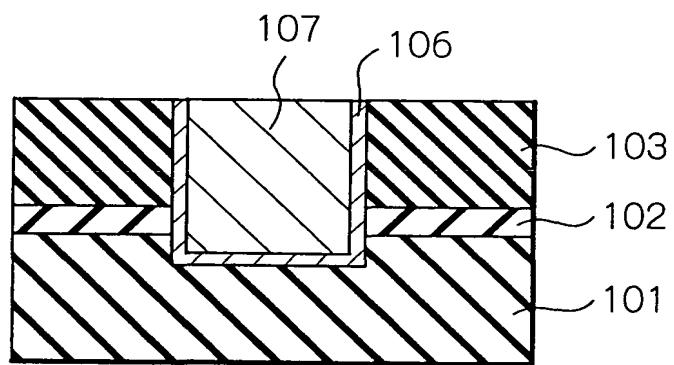


Fig. 1G PRIOR ART

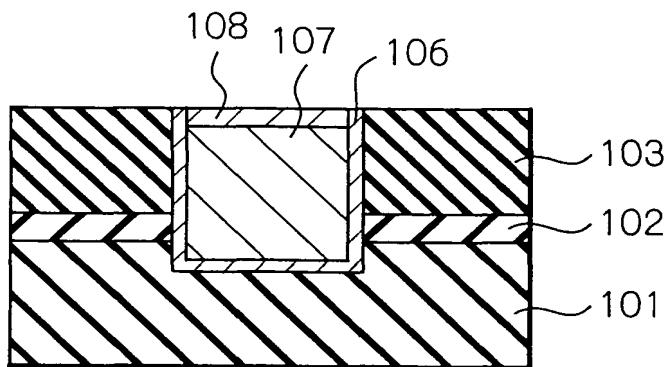


Fig. 1H PRIOR ART

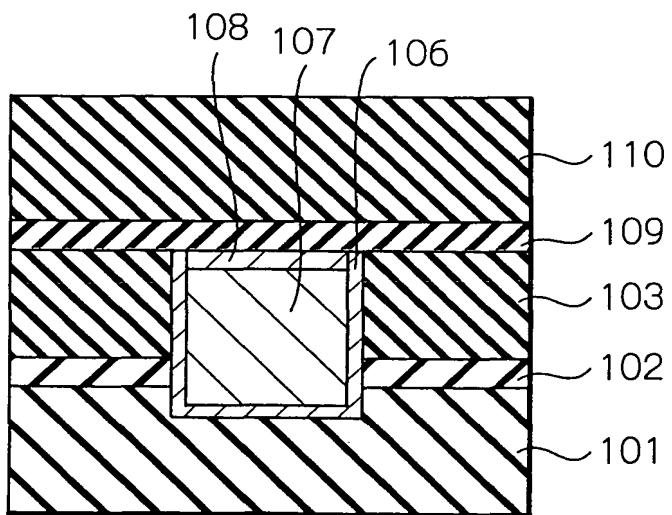


Fig. 2A PRIOR ART

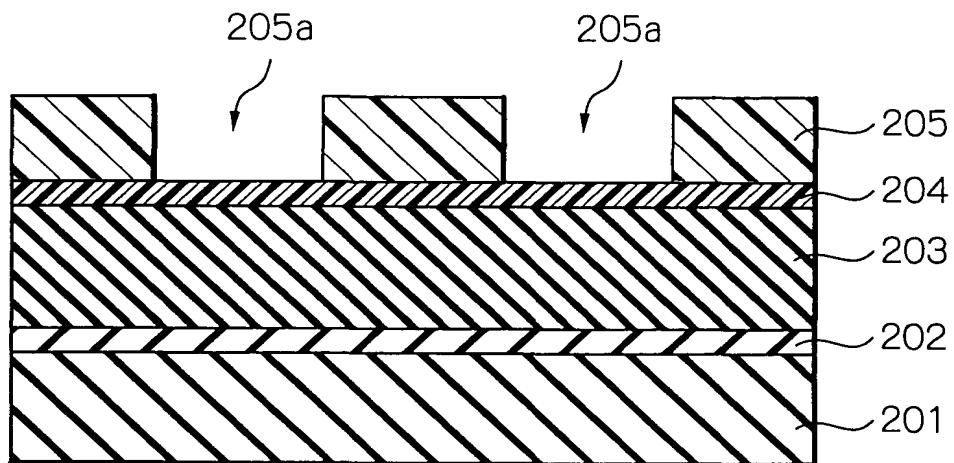


Fig. 2B PRIOR ART

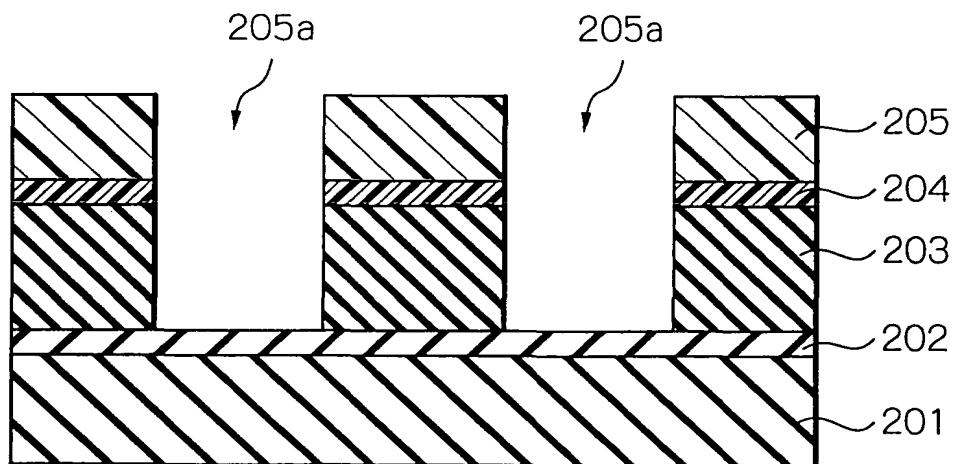


Fig. 2C PRIOR ART

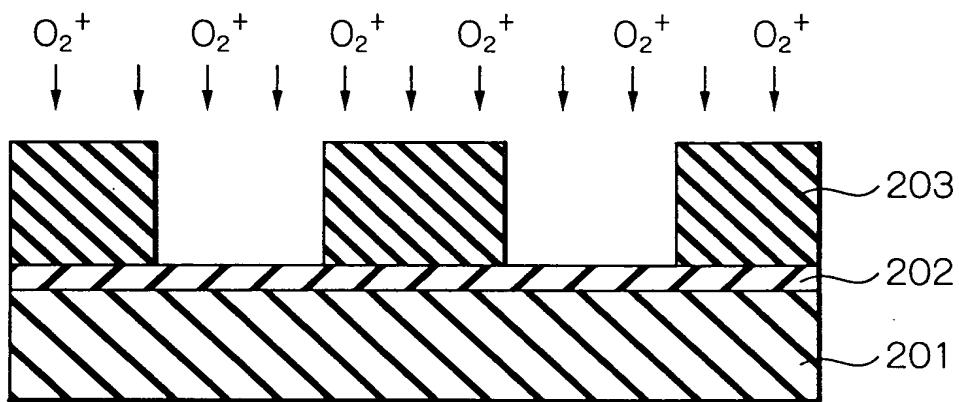


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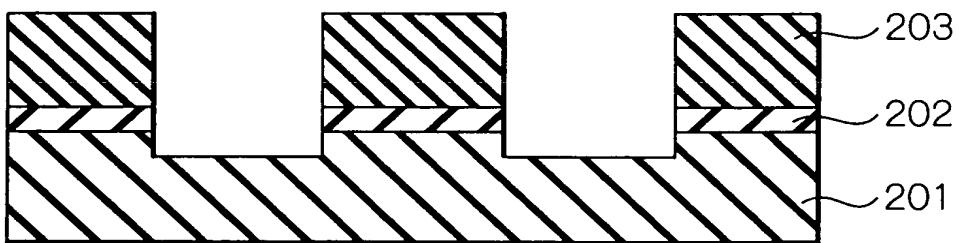


Fig. 2E PRIOR ART

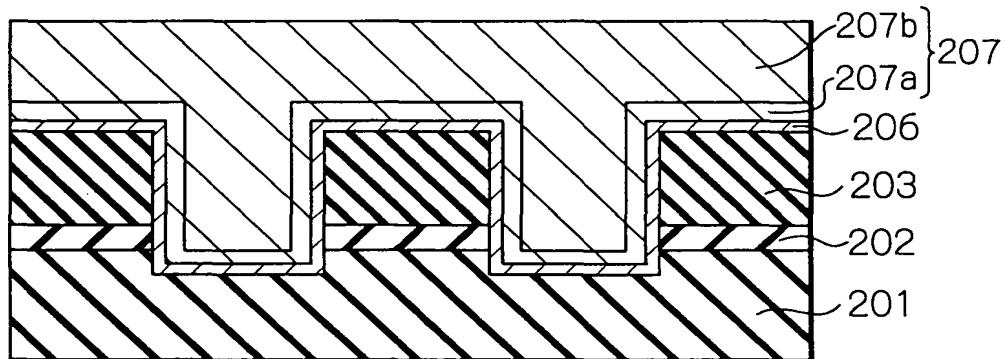


Fig. 2F PRIOR ART

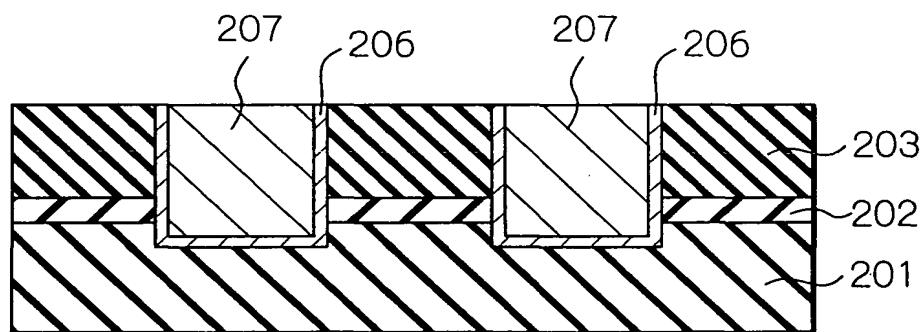


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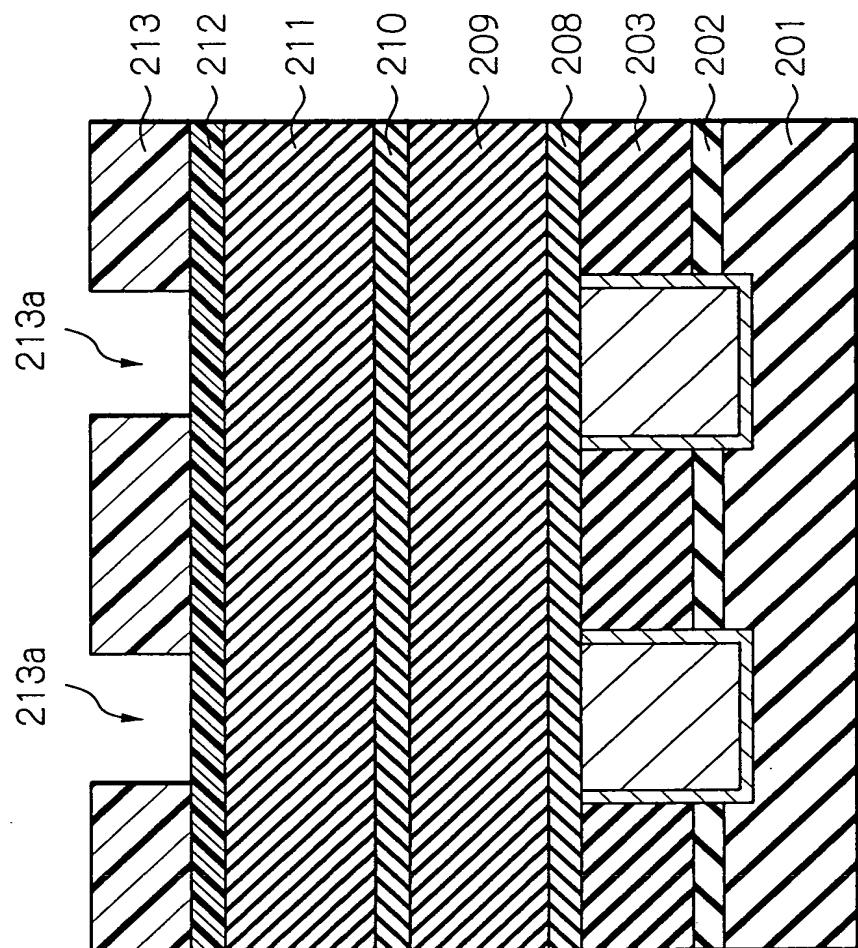
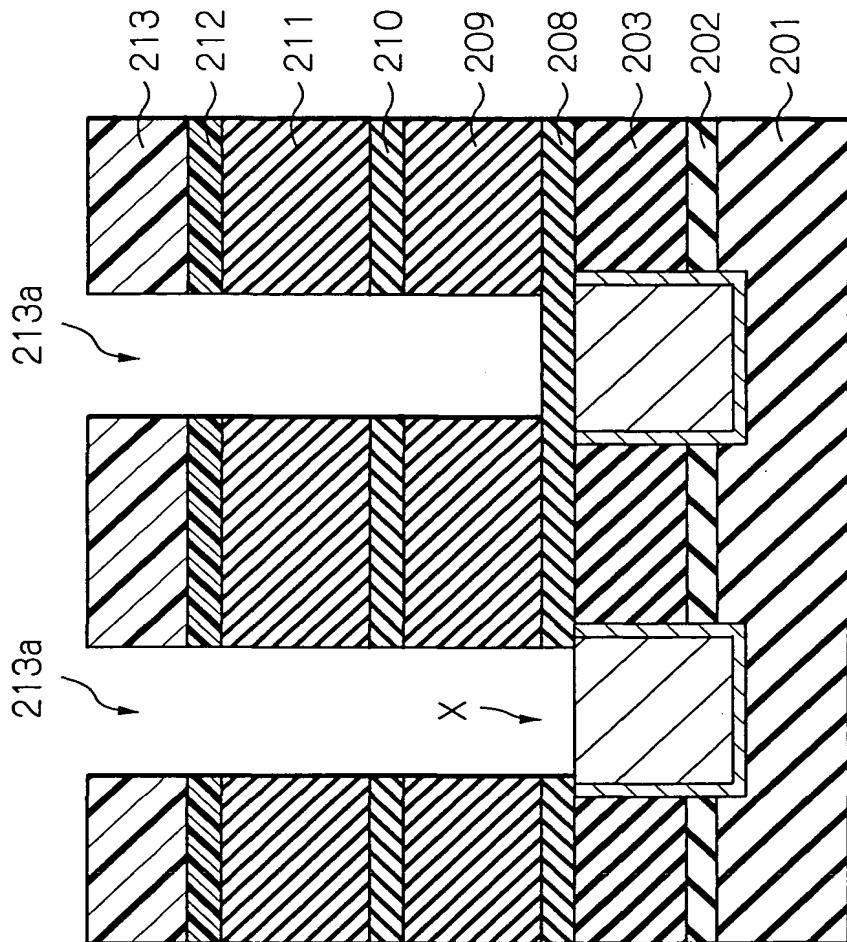


Fig. 2H PRIOR ART



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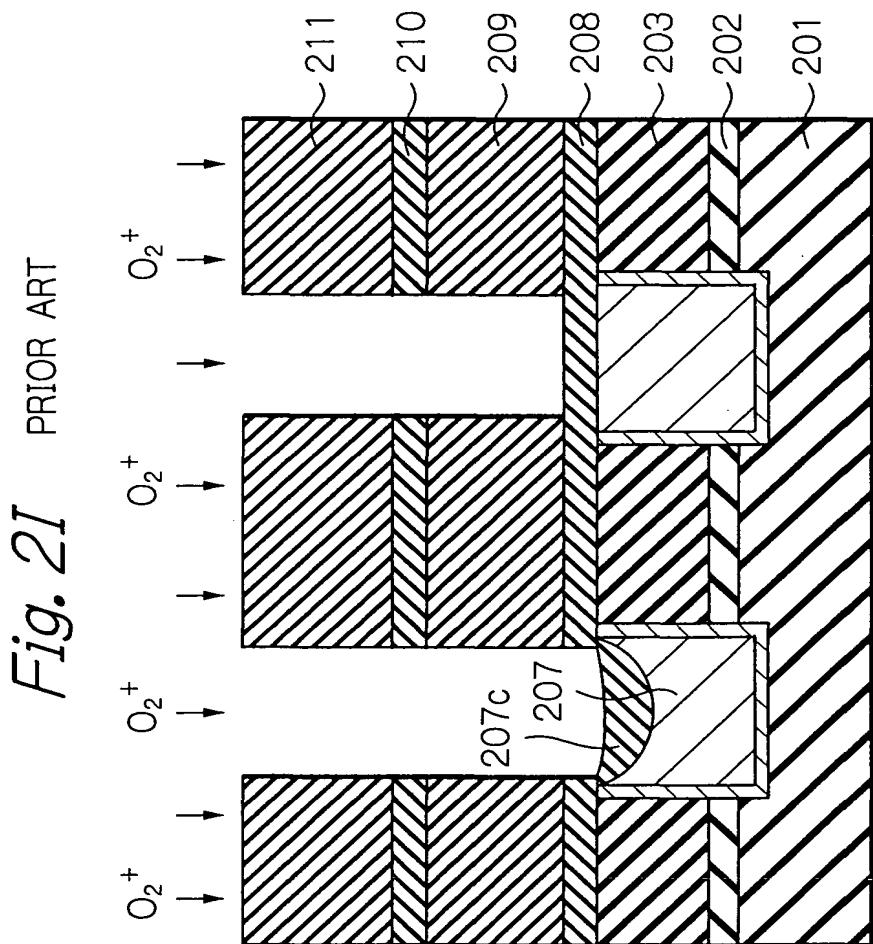


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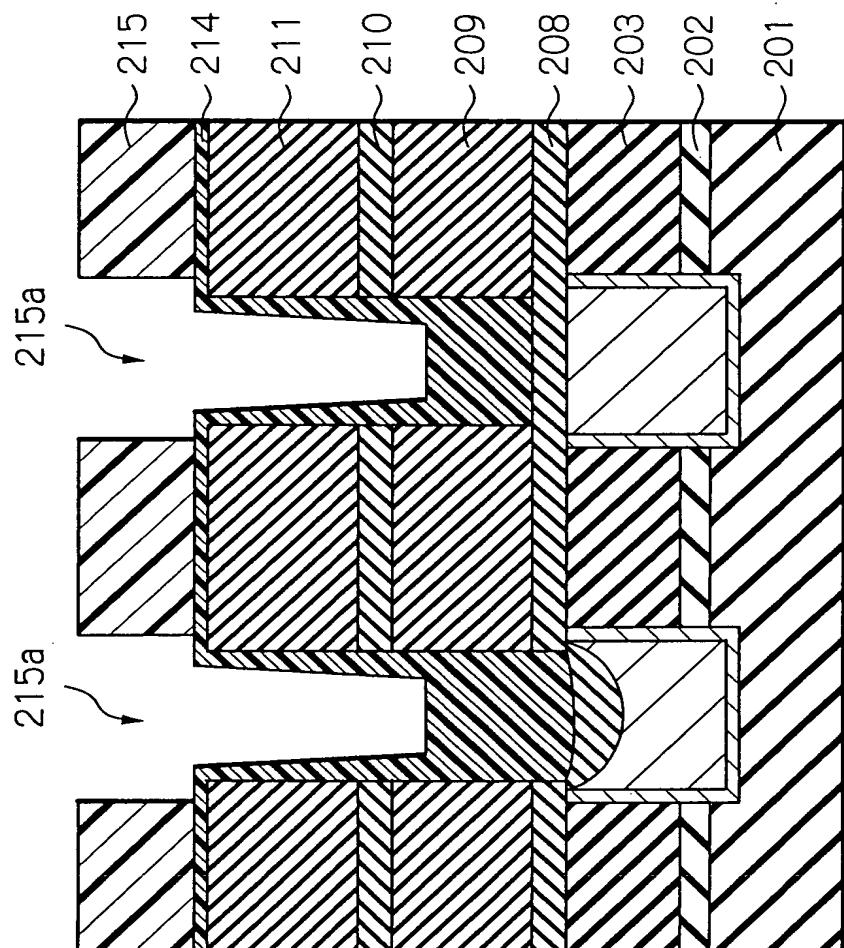


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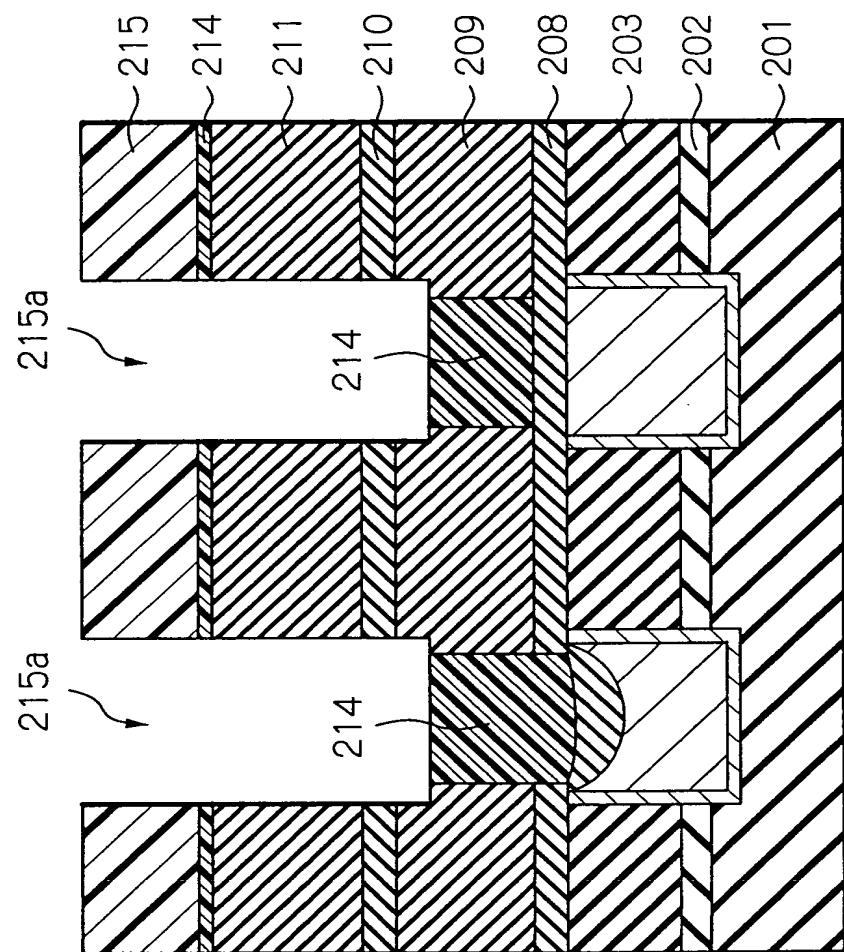


Fig. 2L PRIOR ART

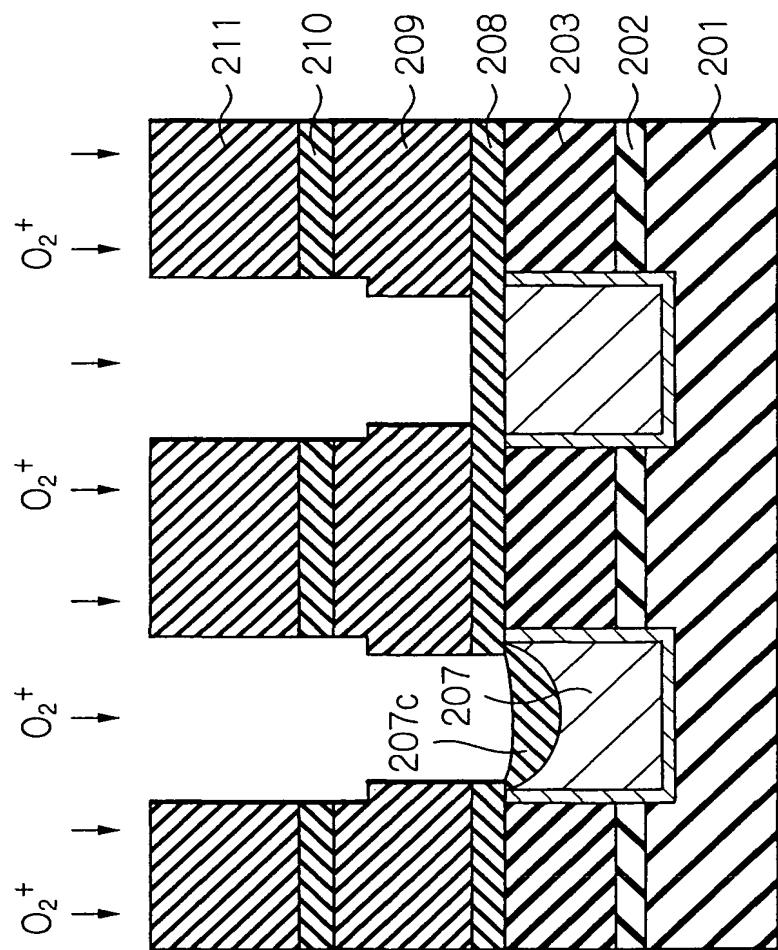
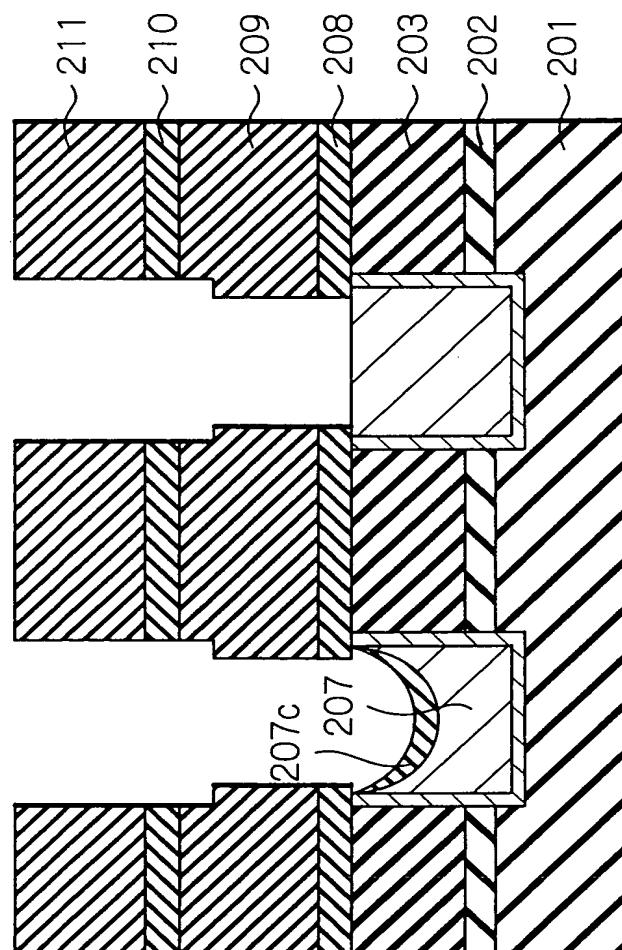


Fig. 2M PRIOR ART



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Fig. 2N PRIOR ART

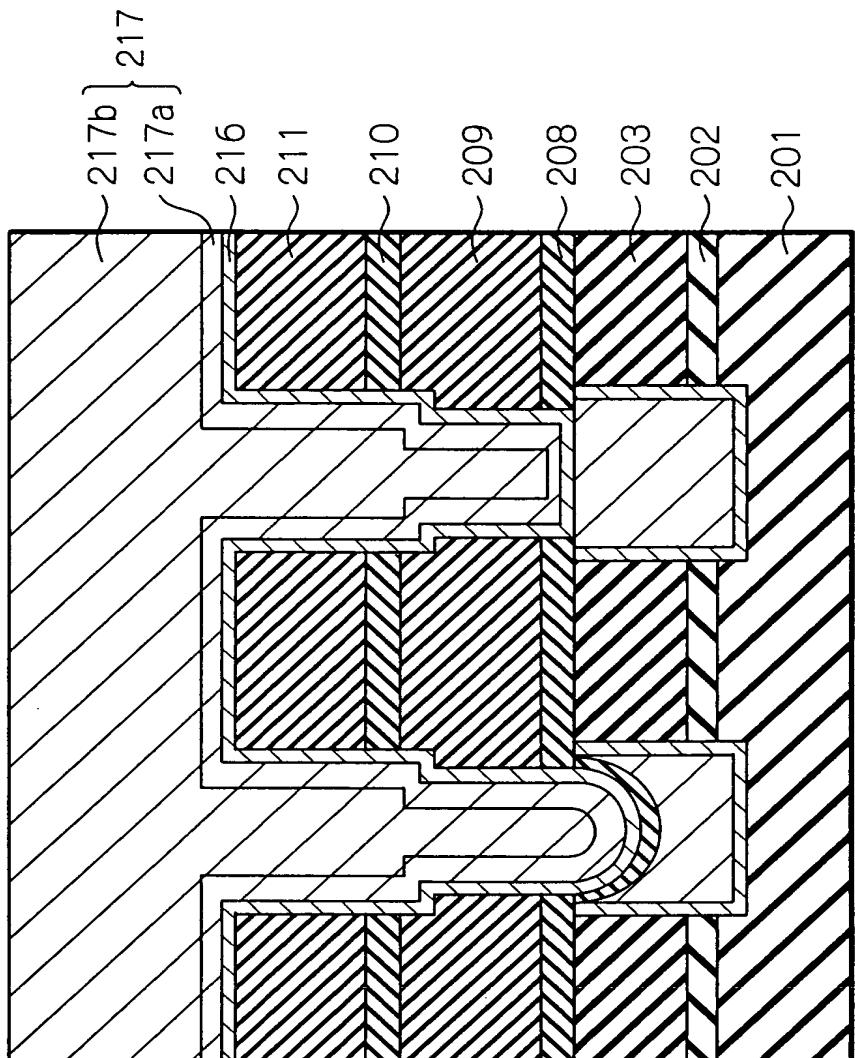
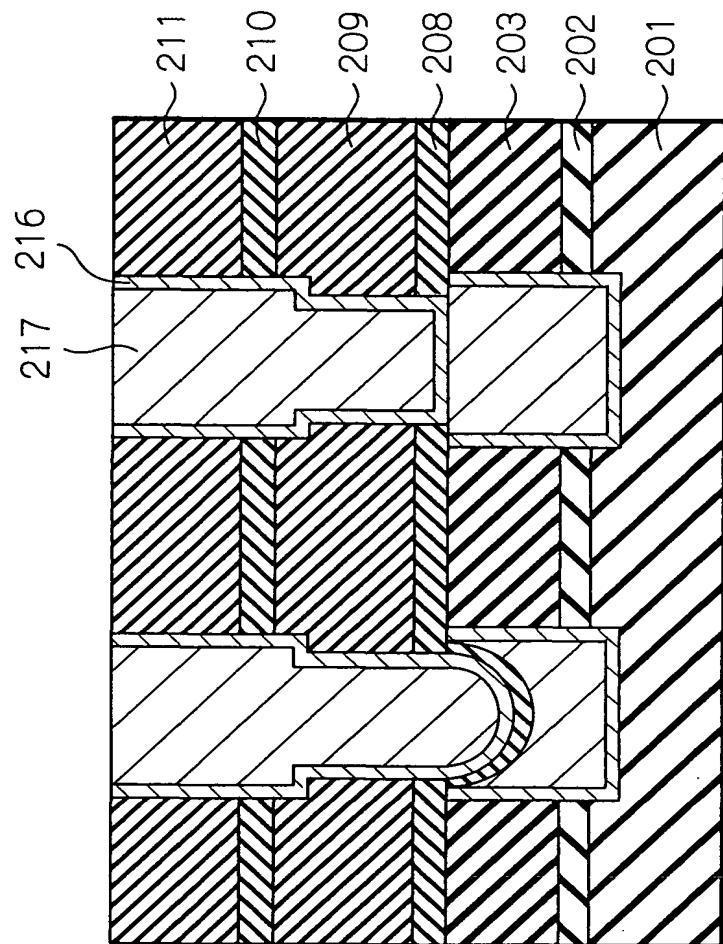
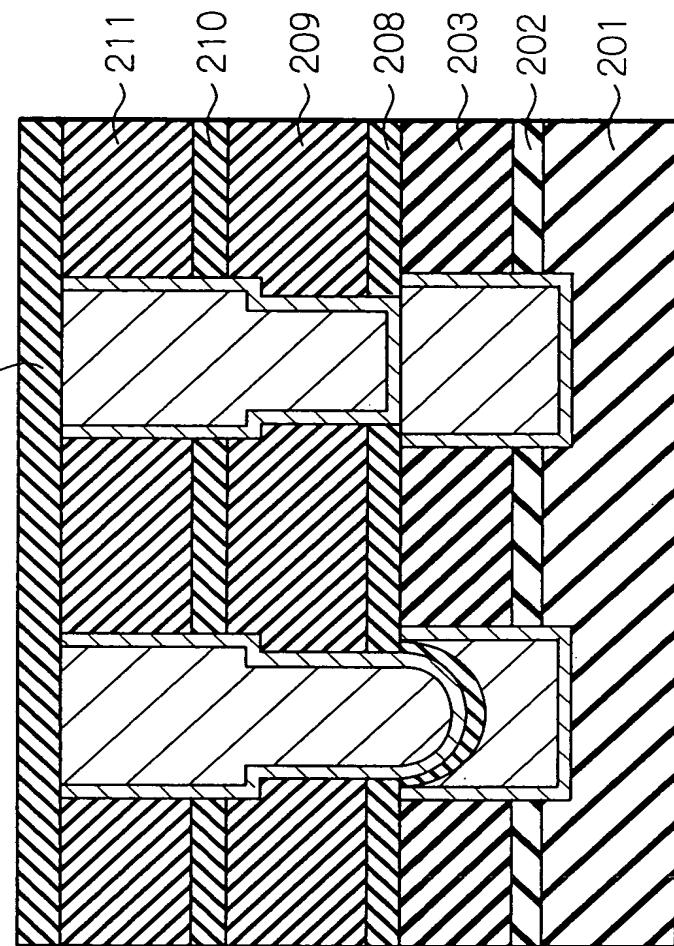


Fig. 20 PRIOR ART



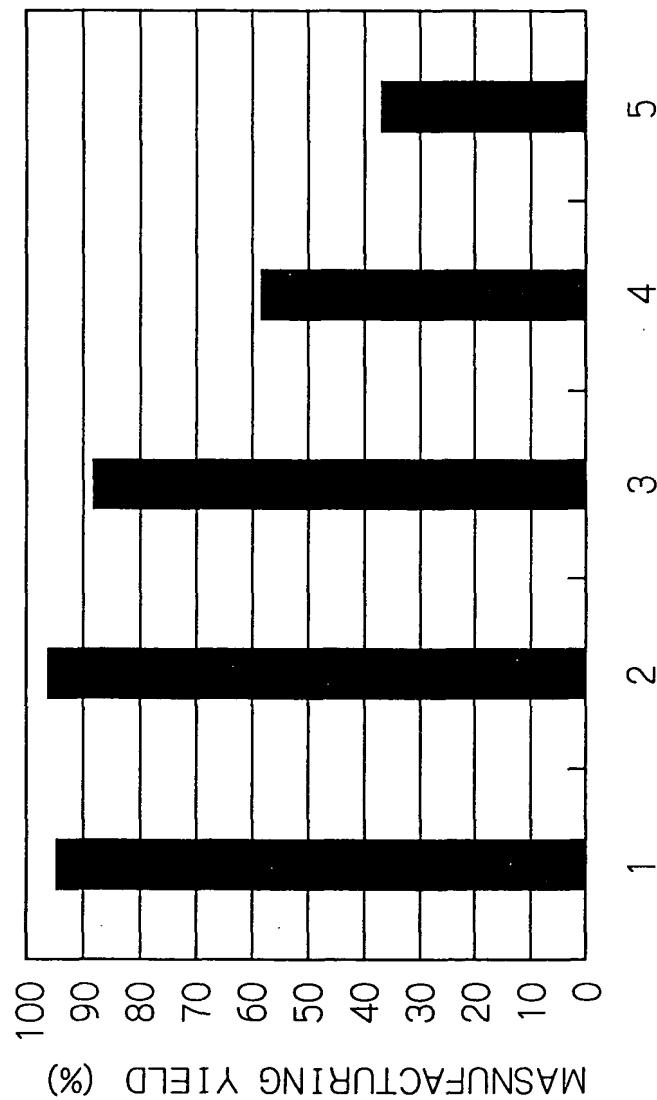
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Fig. 2P PRIOR ART



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Fig. 3 PRIOR ART



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Fig. 4 PRIOR ART

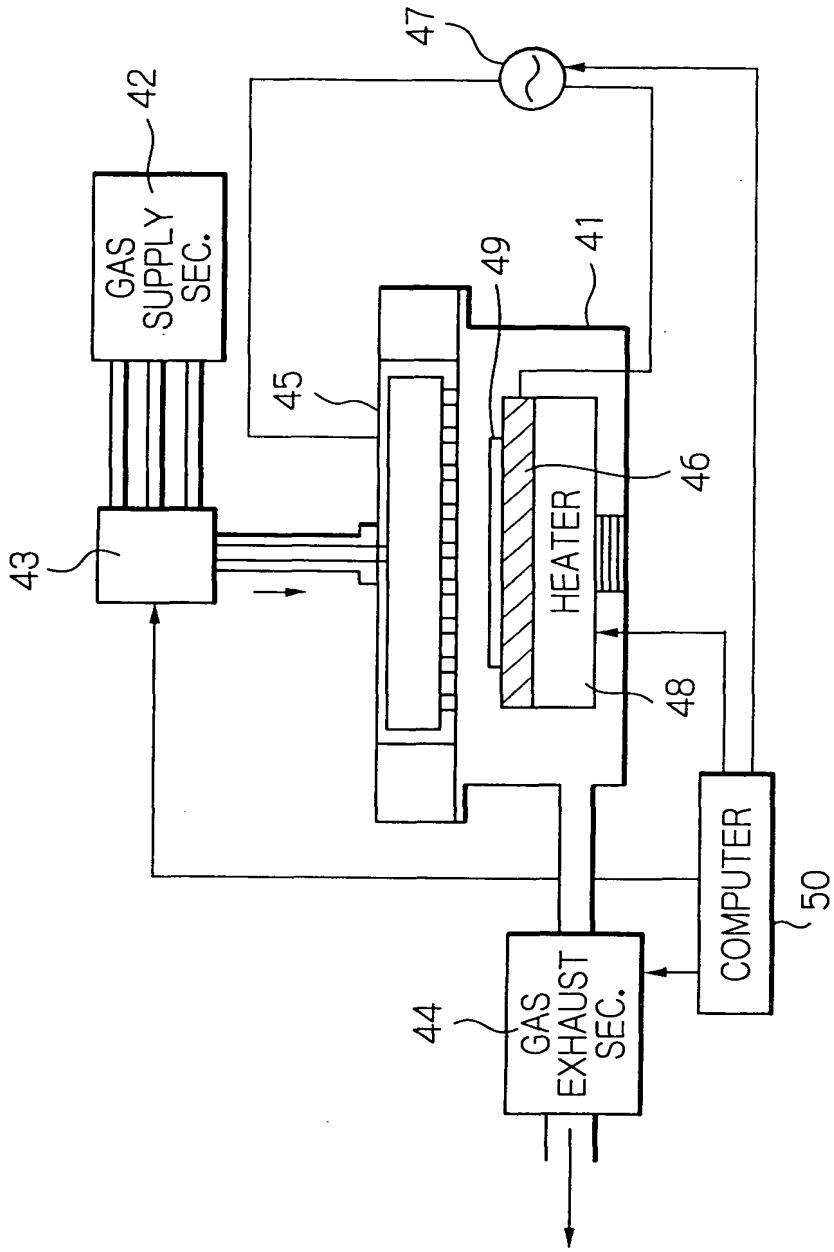


Fig. 5A

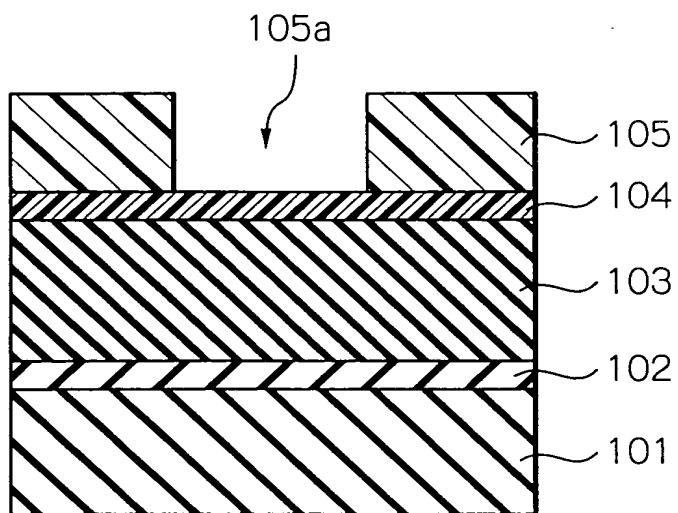


Fig. 5B

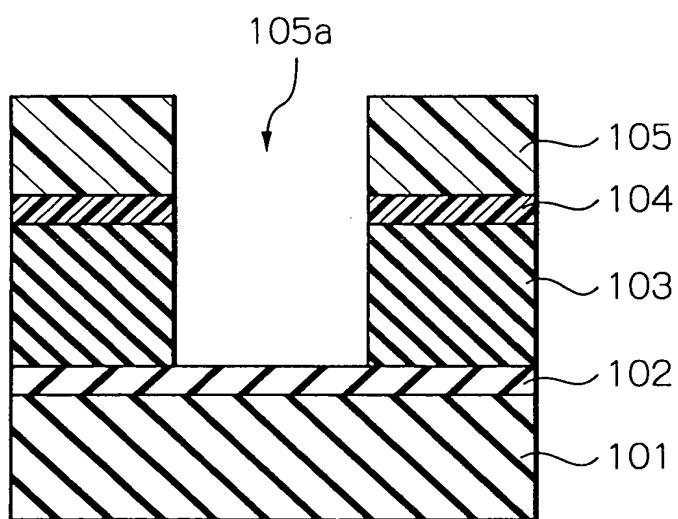


Fig. 5C

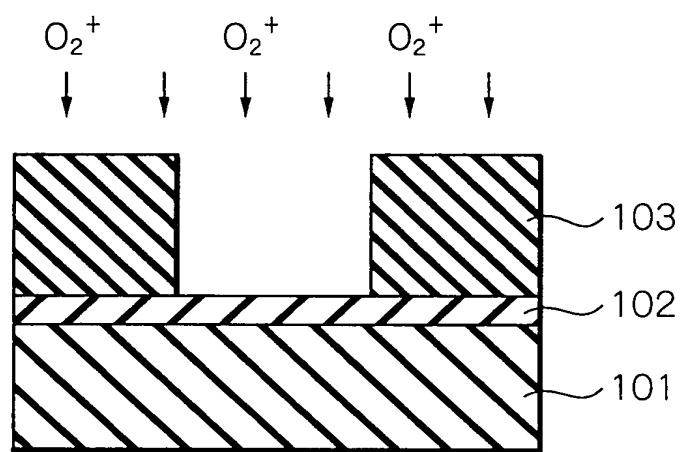


Fig. 5D

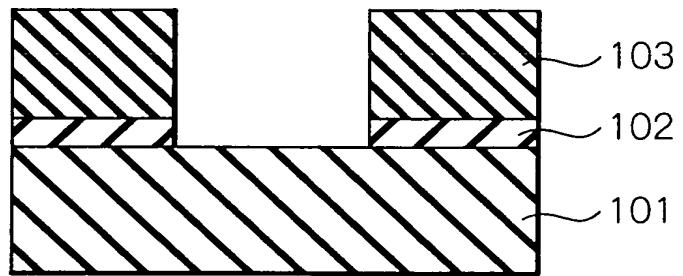


Fig. 5E

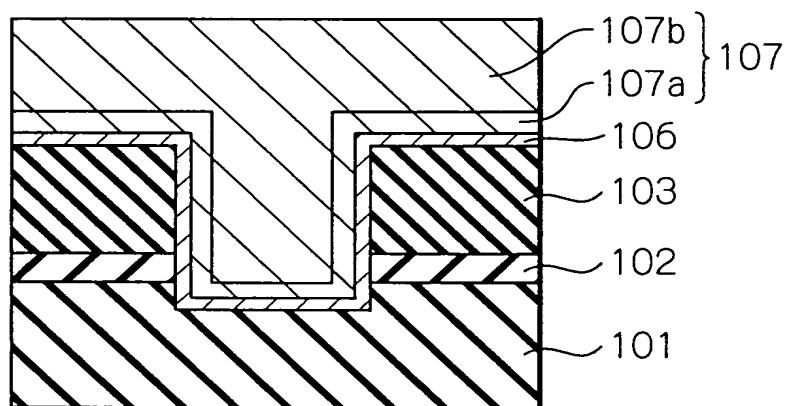


Fig. 5F

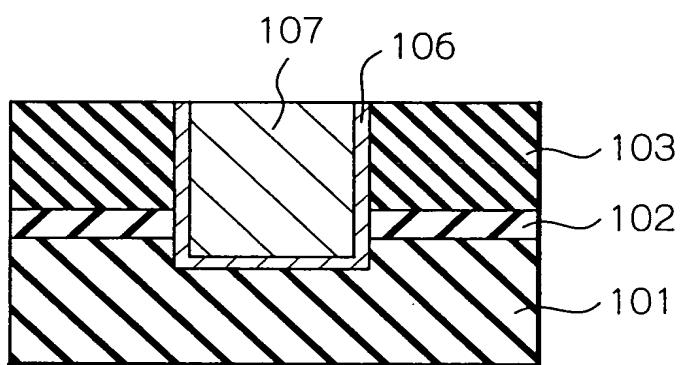


Fig. 5G

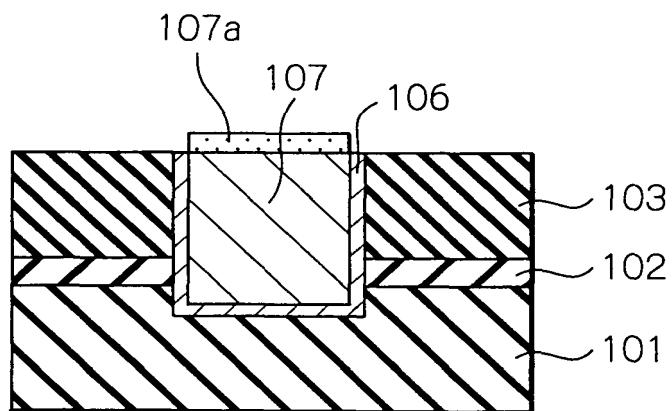


Fig. 5H

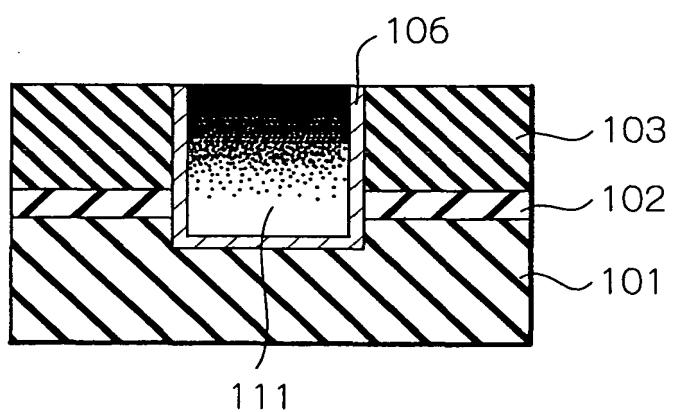


Fig. 5I

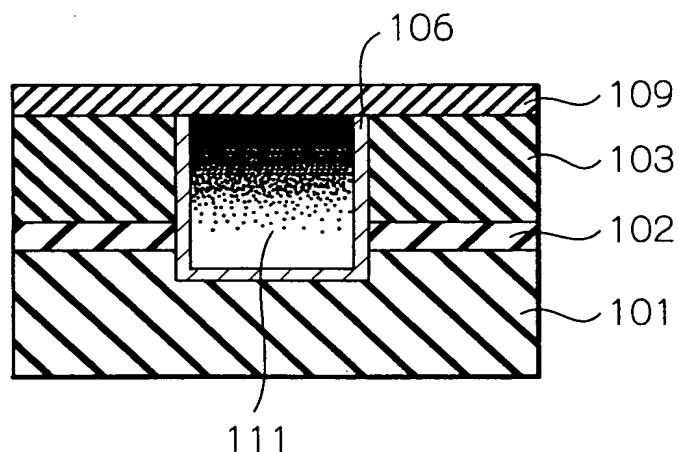


Fig. 5J

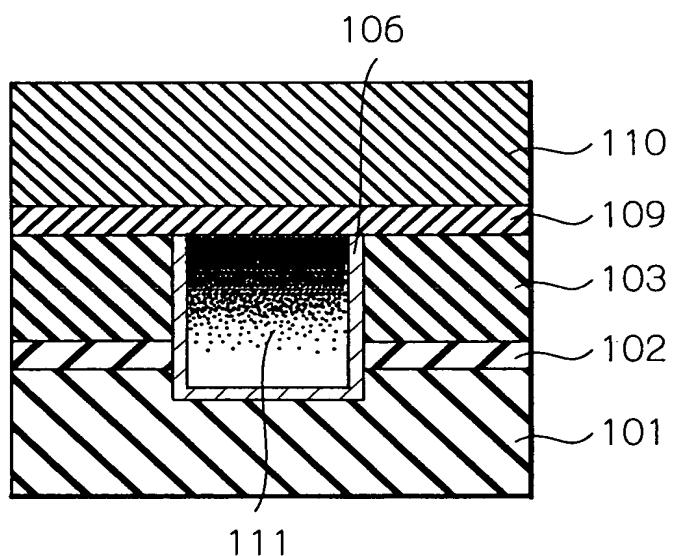


Fig. 6

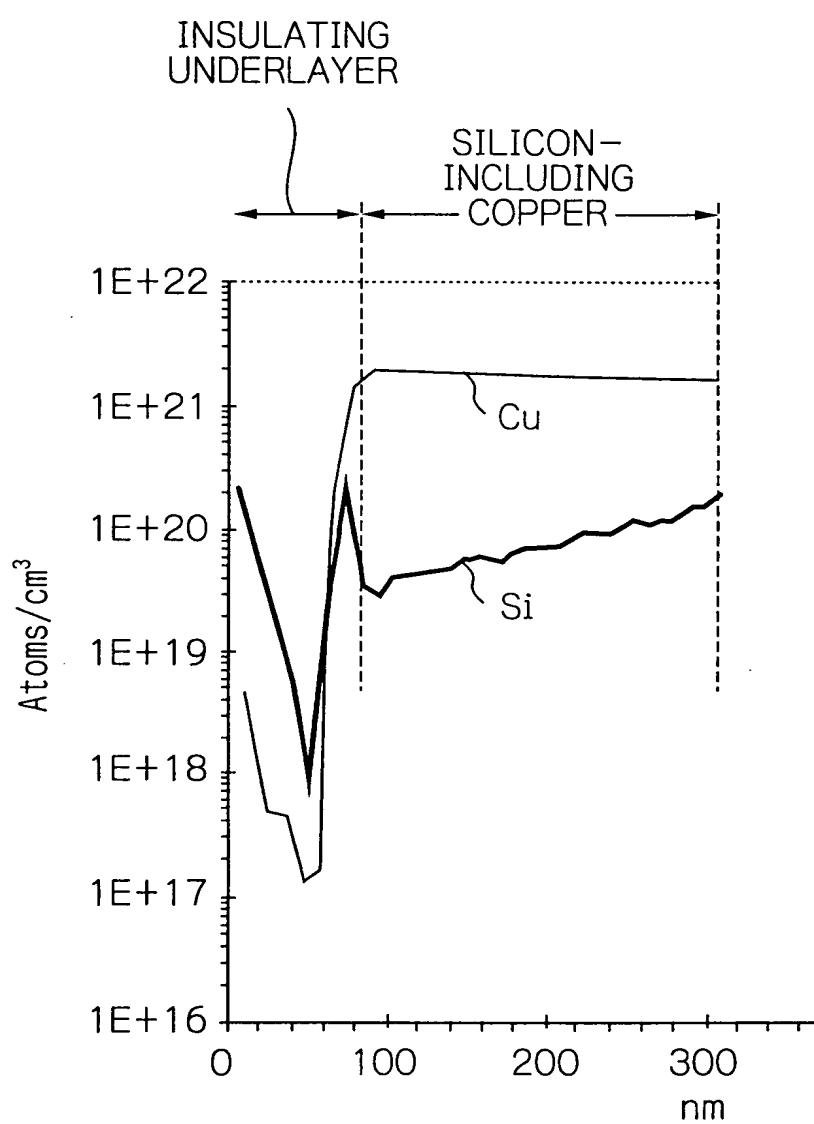


Fig. 7

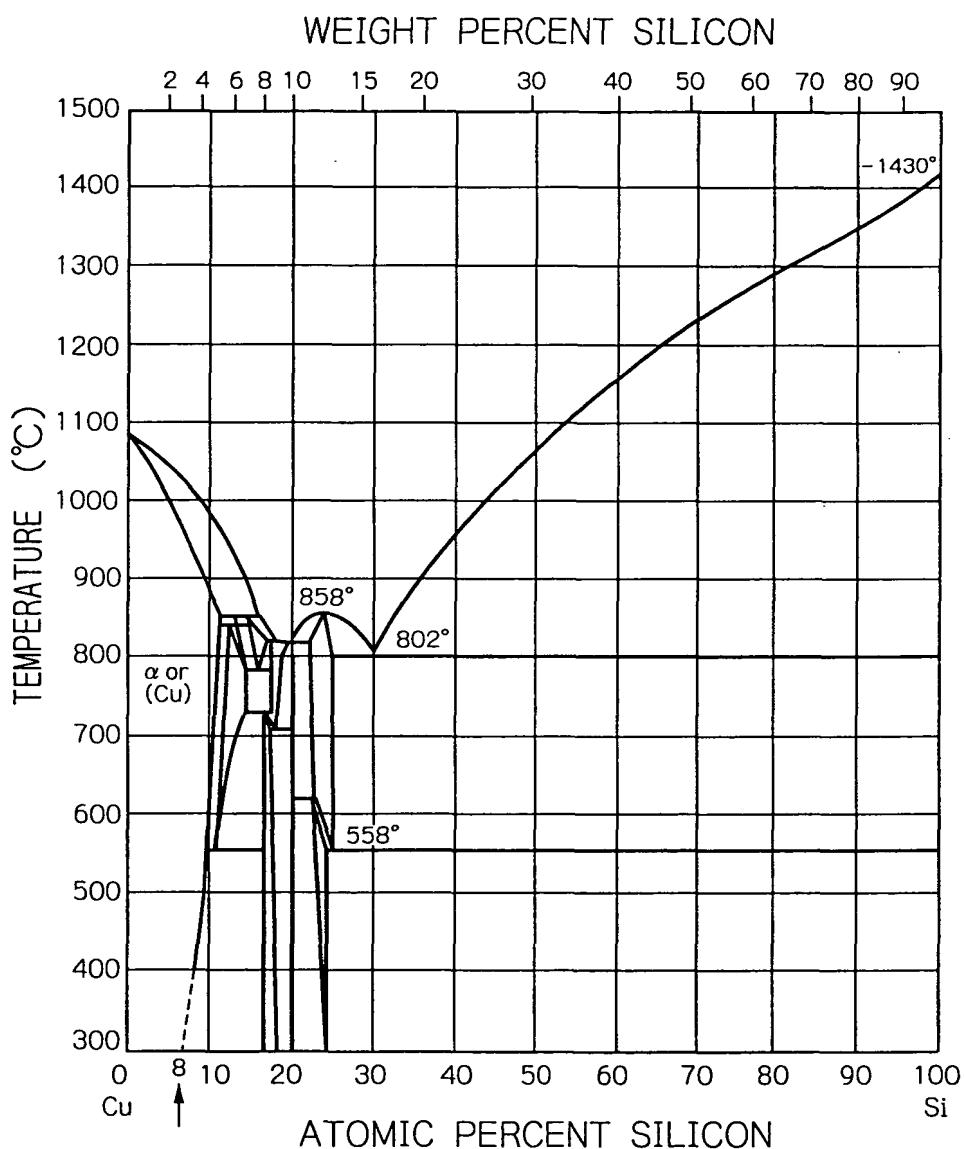


Fig. 8A

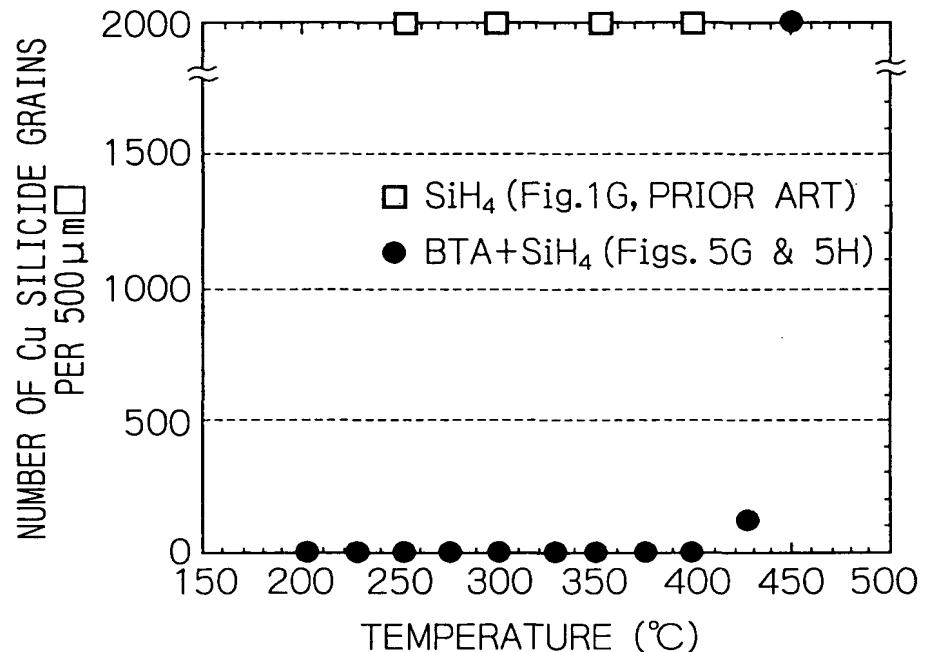
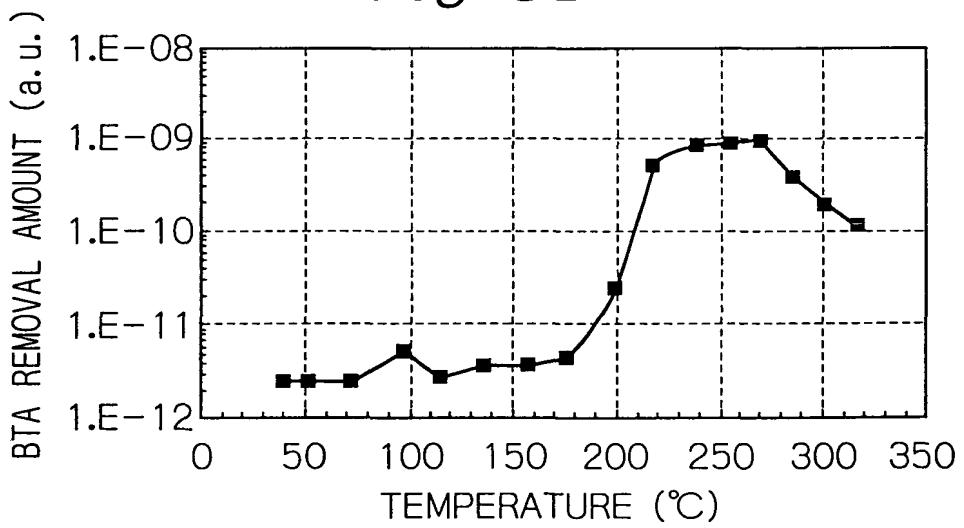


Fig. 8B

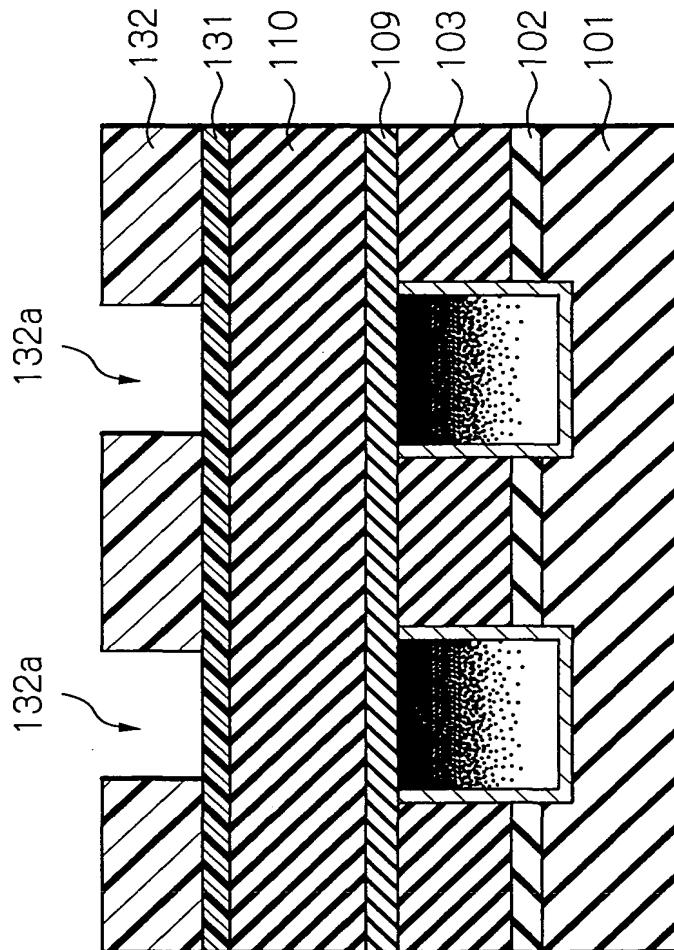


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Fig. 8C

TEMPERATURE (°C)	200	225	250	300	350	400
LAYER 111	ABSENCE OF Si	ABSENCE OF Si	PRESENCE OF Si	PRESENCE OF Si	PRESENCE OF Si	PRESENCE OF Si

Fig. 9A



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87

Fig. 9B

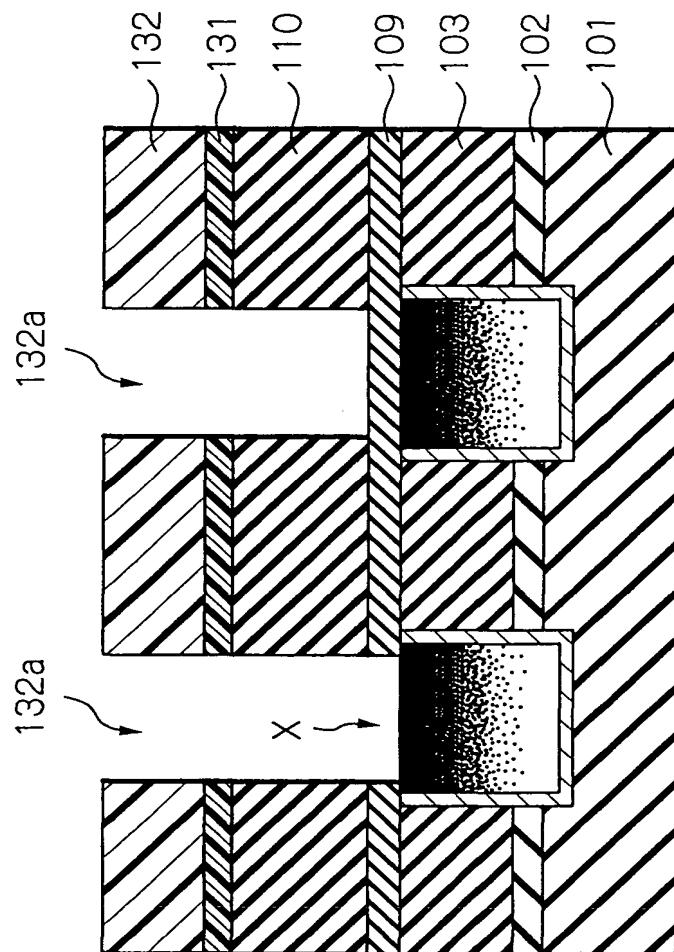


Fig. 9C

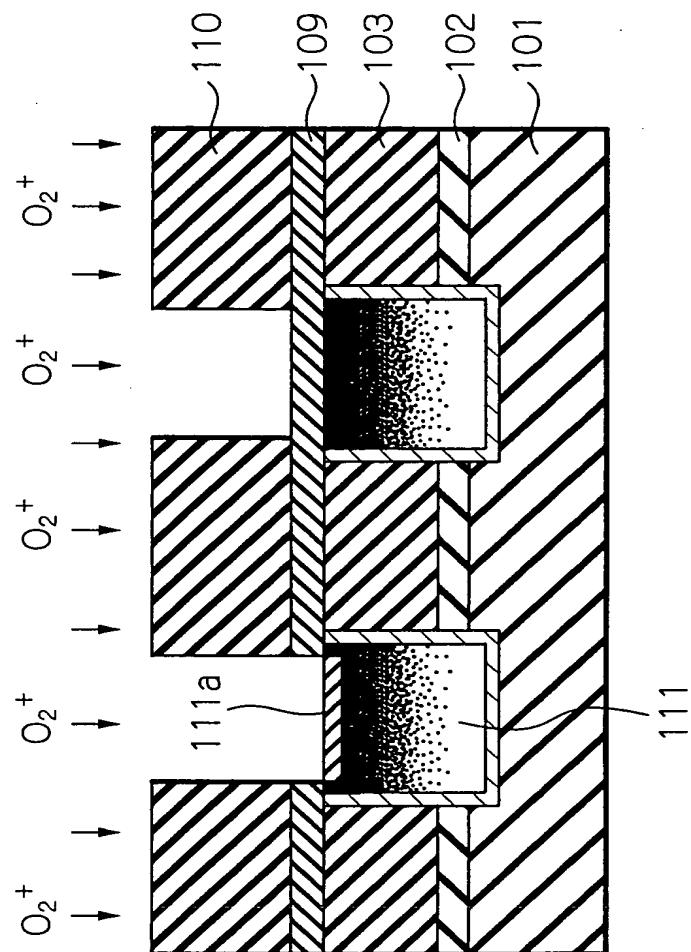


Fig. 9D

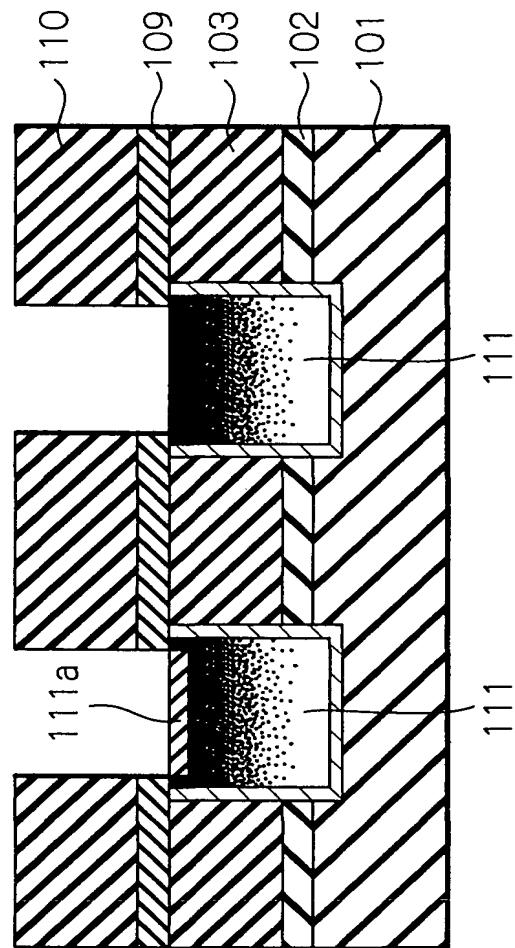
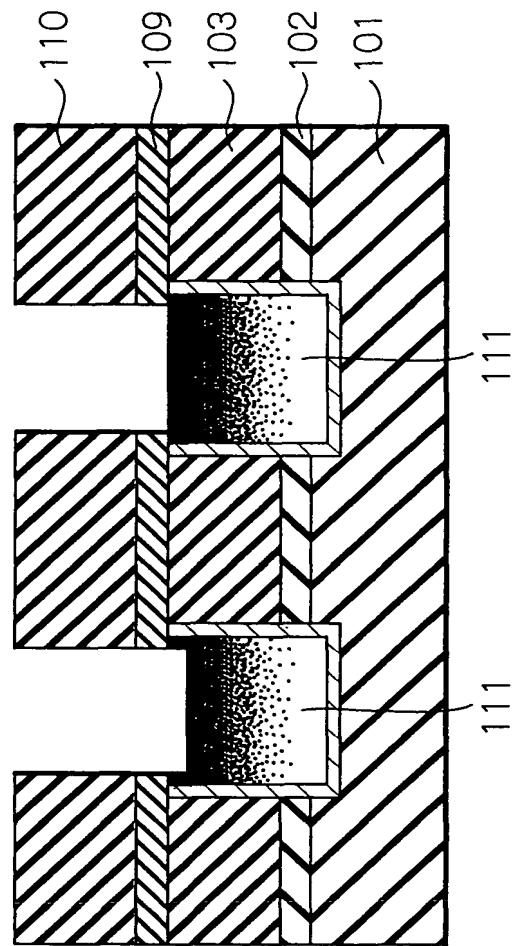


Fig. 9E



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Fig. 9F

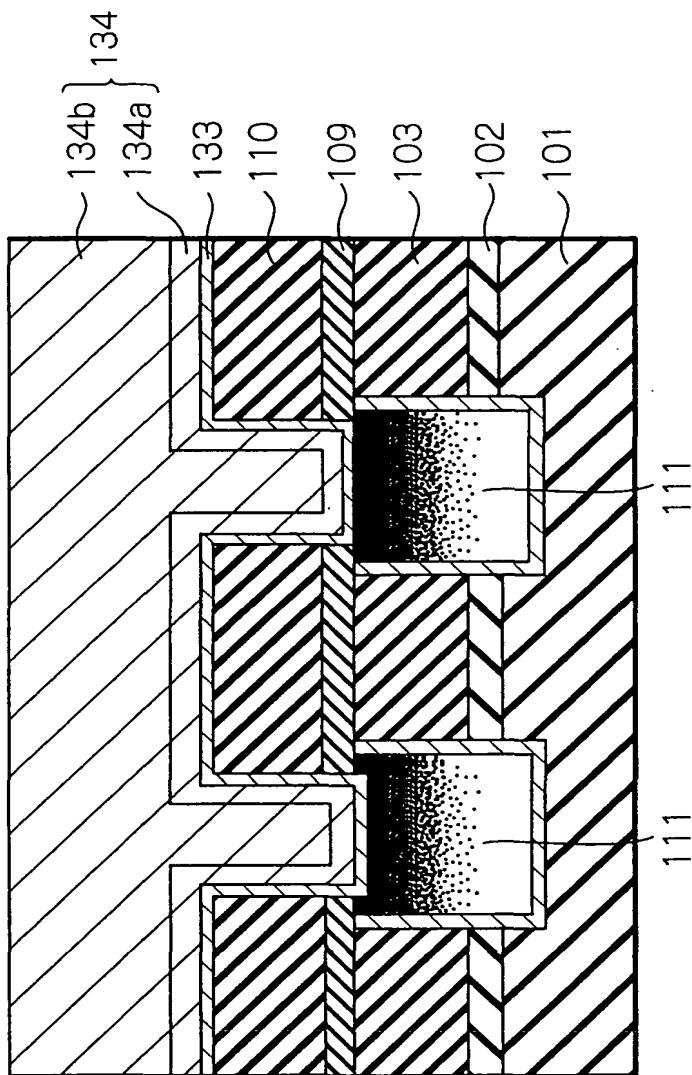


Fig. 9G

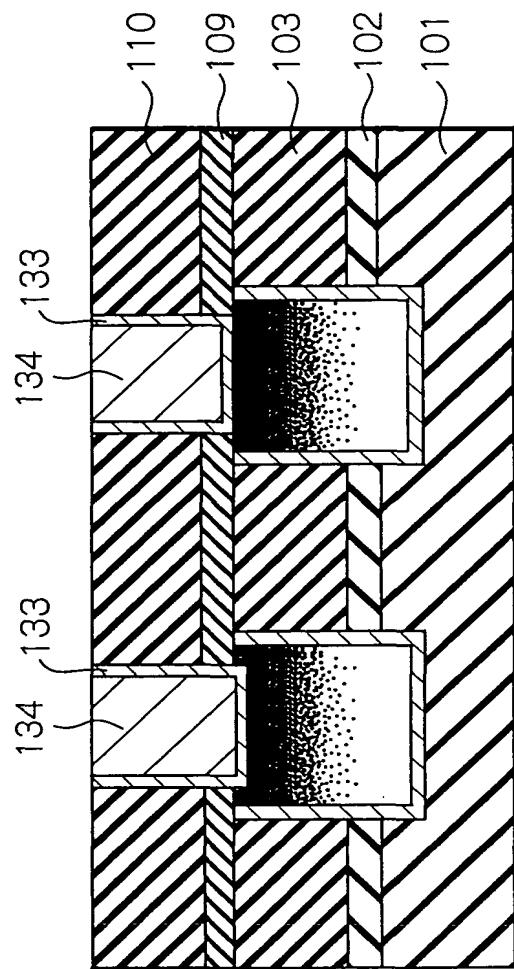
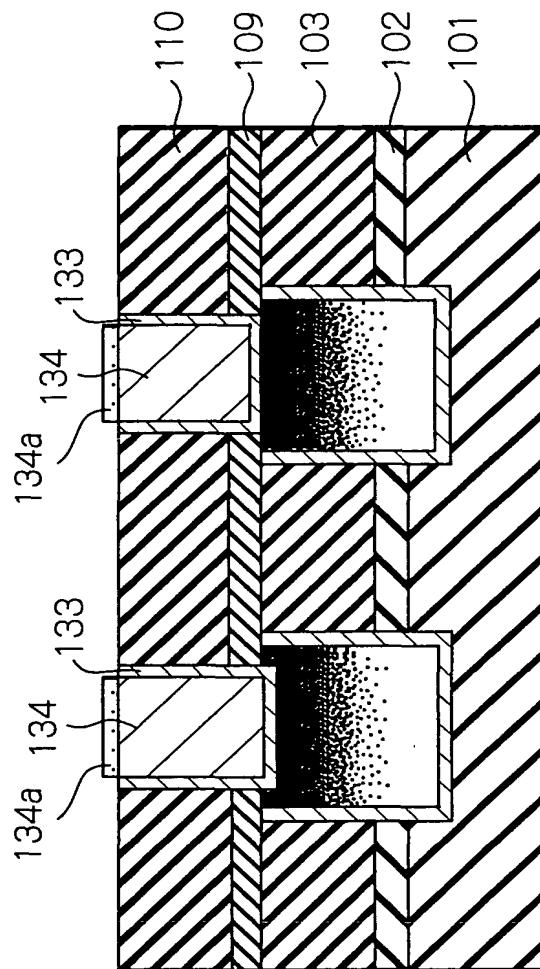
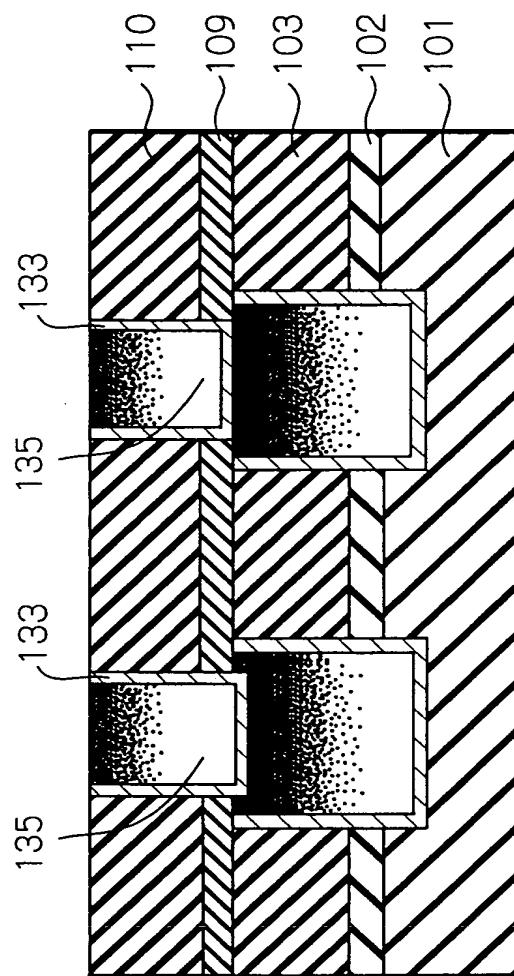


Fig. 9H



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Fig. 9I



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Fig. 9J

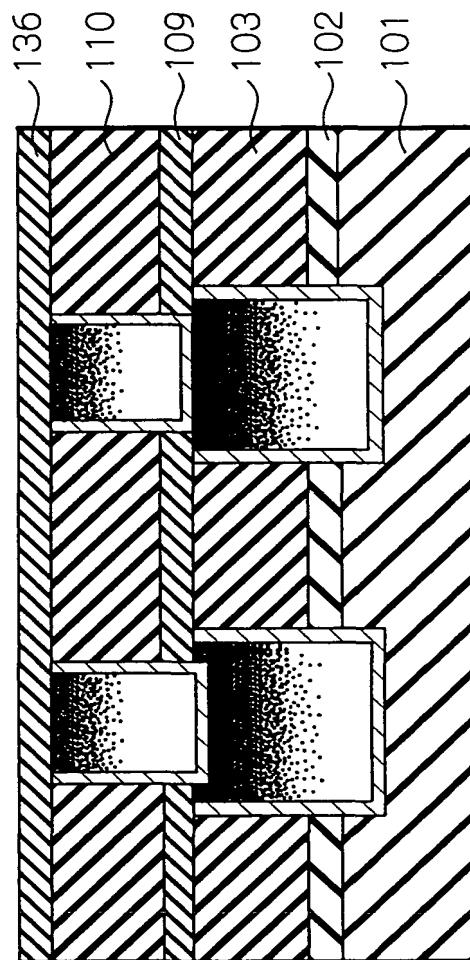


Fig. 9K

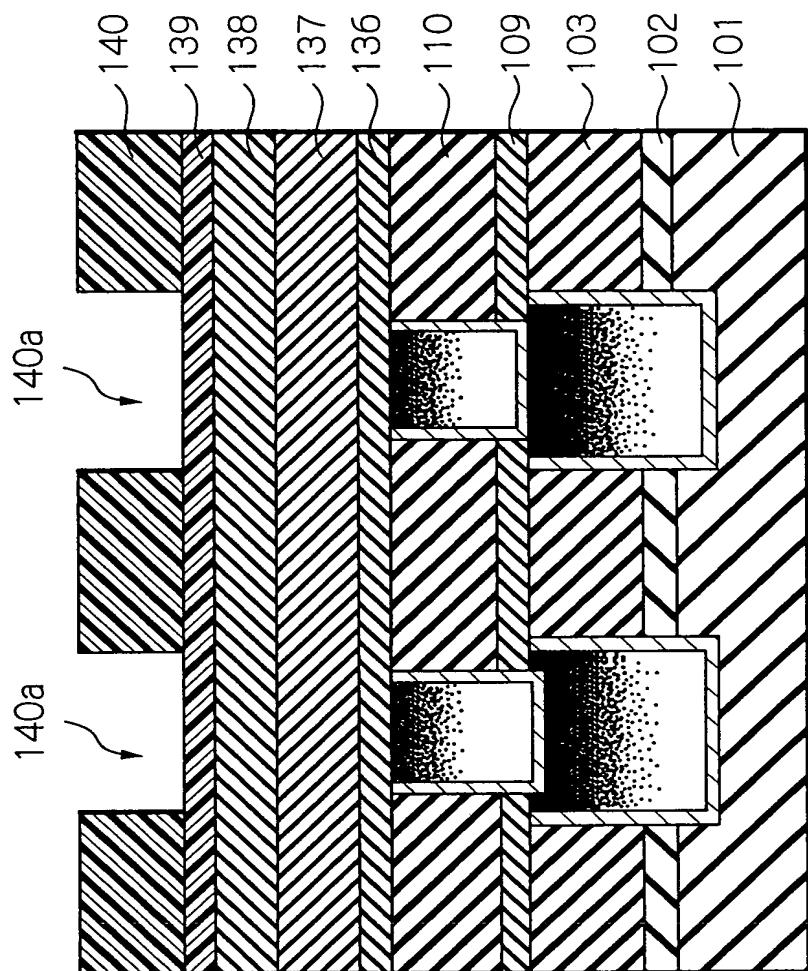


Fig. 9L

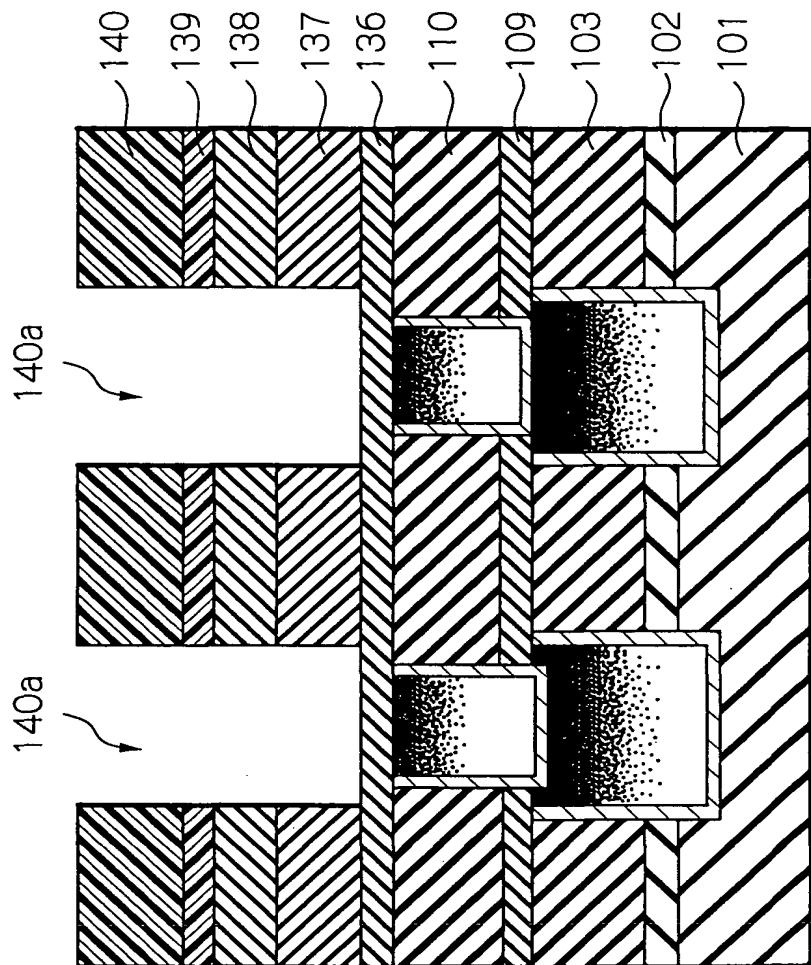
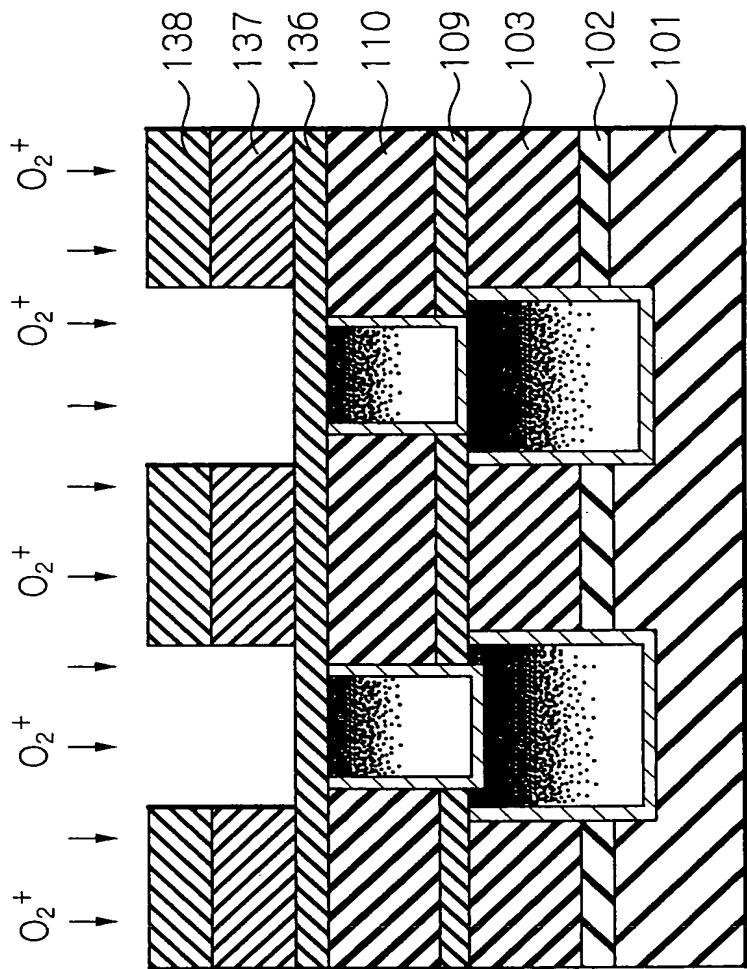
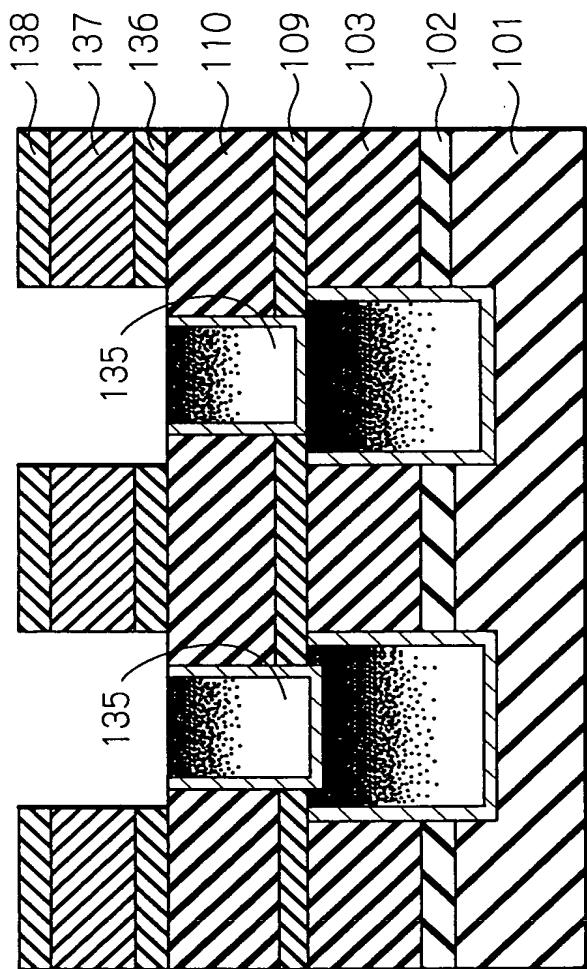


Fig. 9M



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Fig. 9N



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Fig. 90

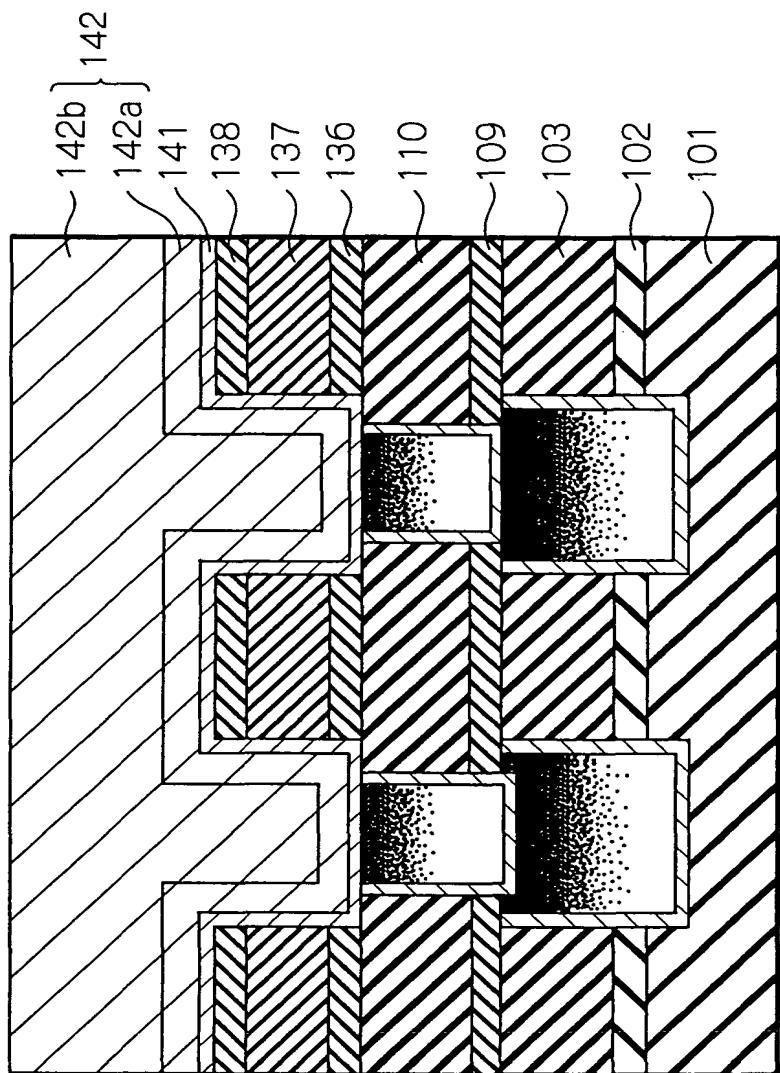


Fig. 9P

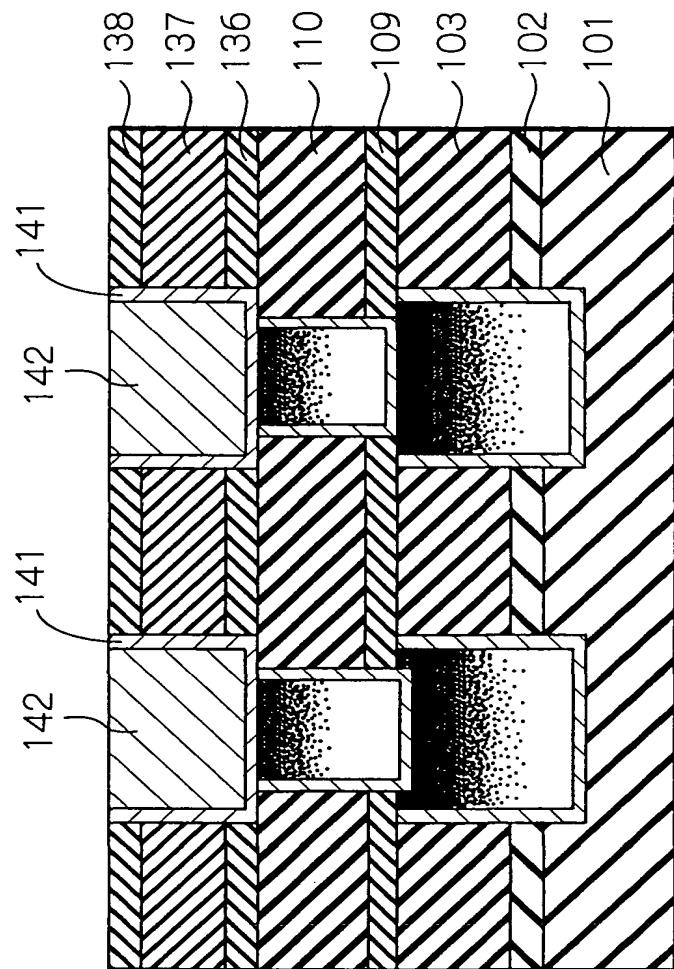
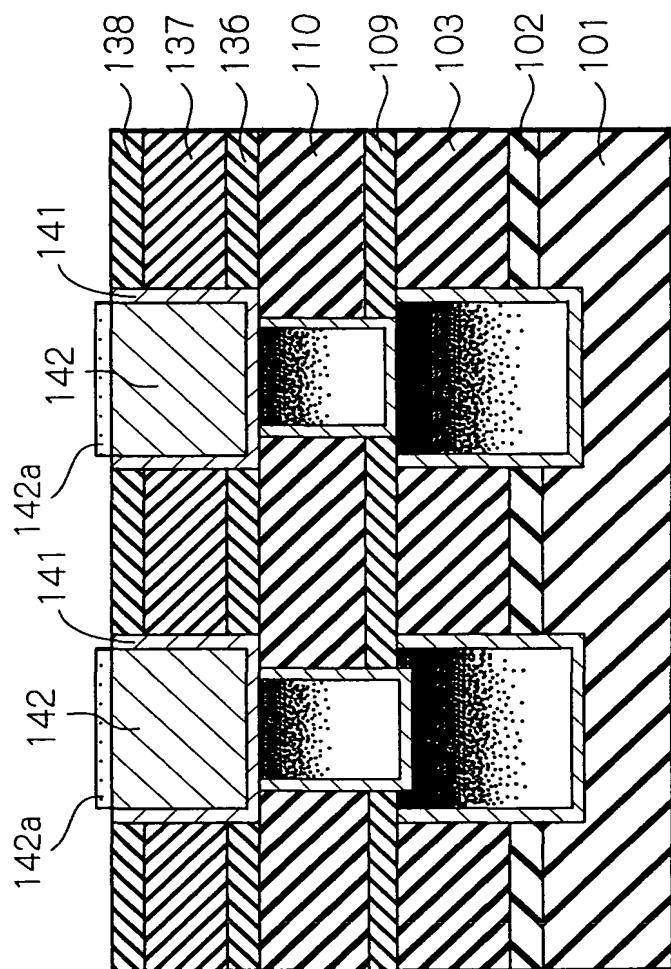


Fig. 9Q



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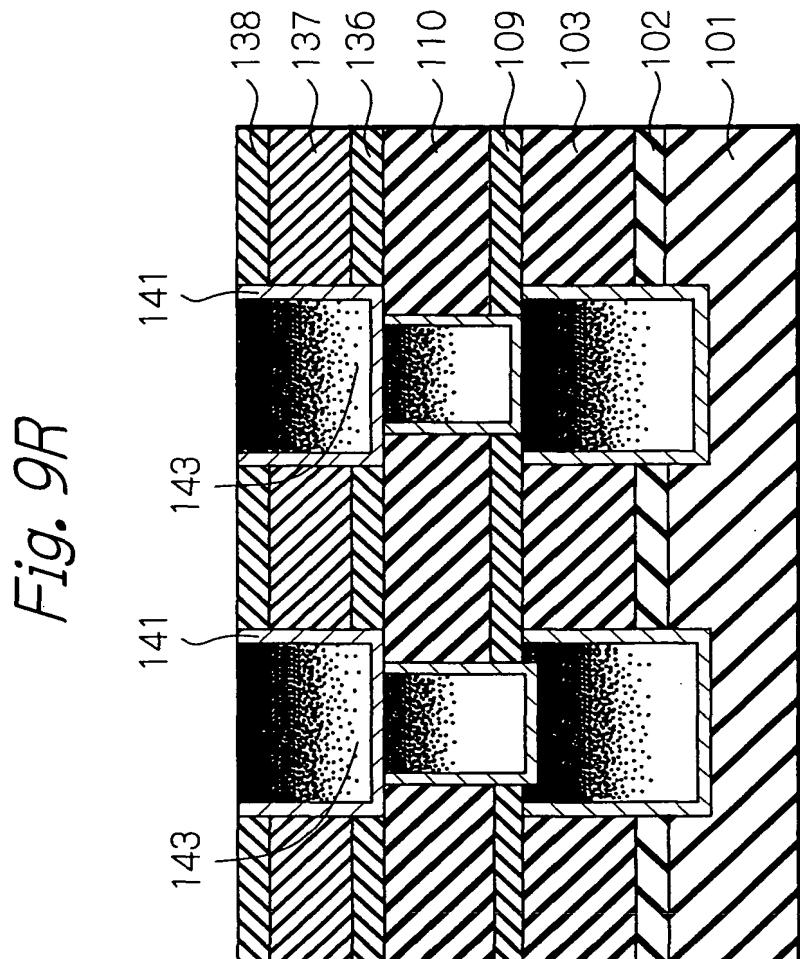


Fig. 9S

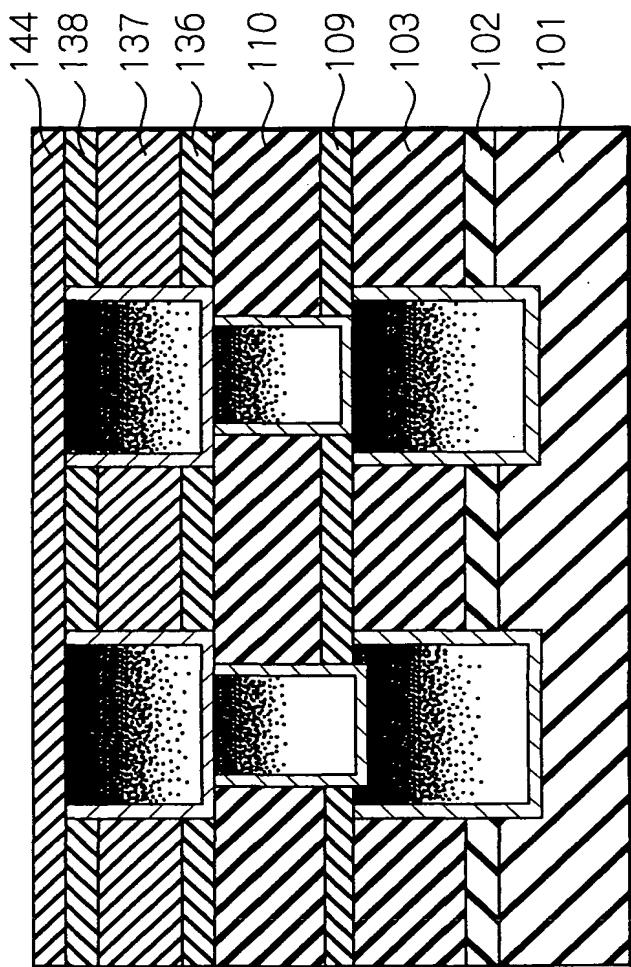


Fig. 10A

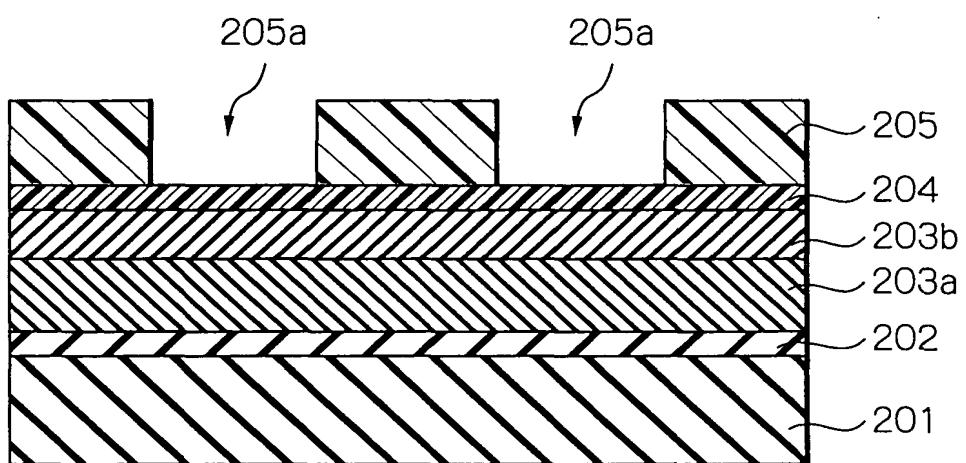


Fig. 10B

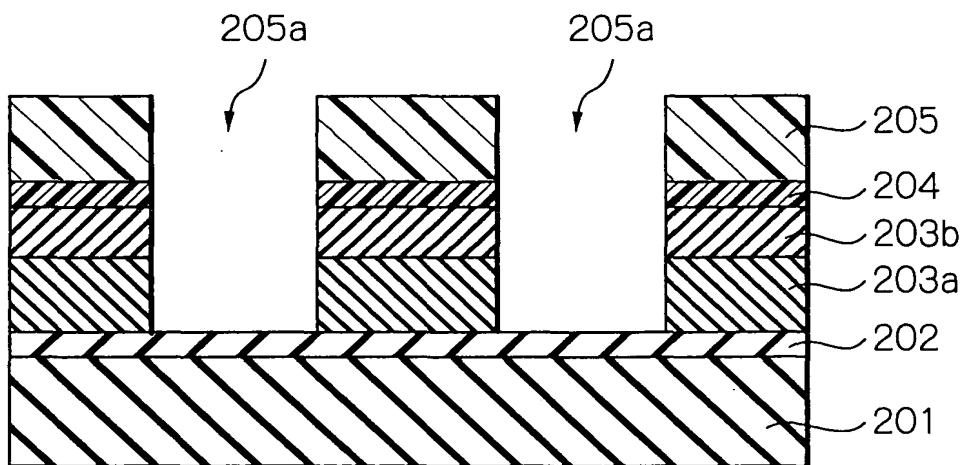


Fig. 10C

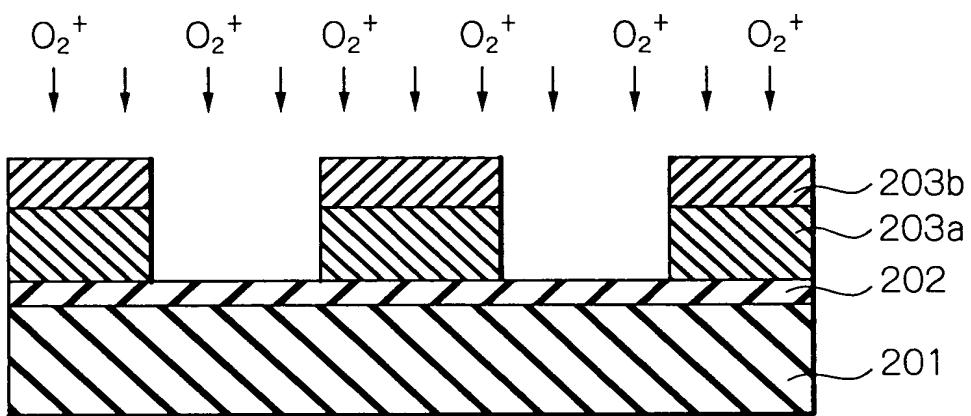


Fig. 10D

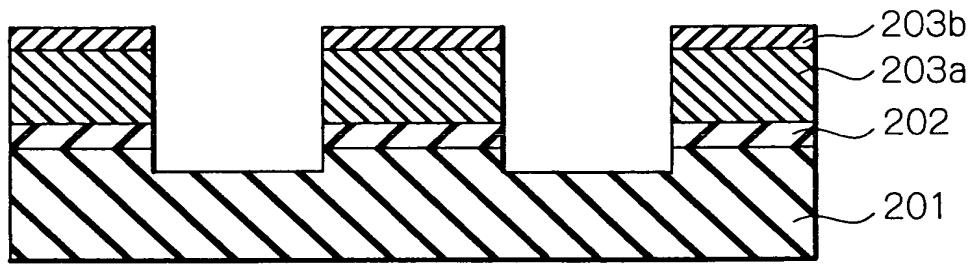


Fig. 10E

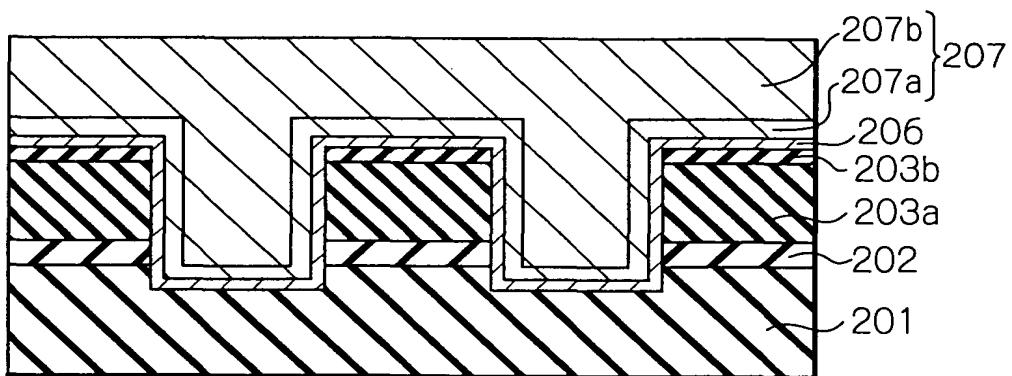


Fig. 10F

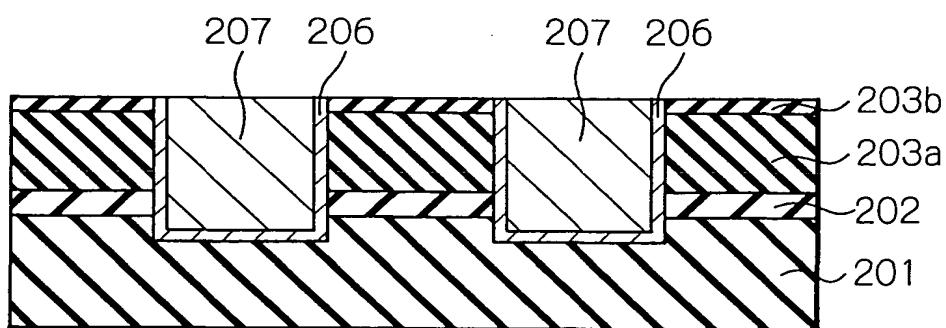


Fig. 10G

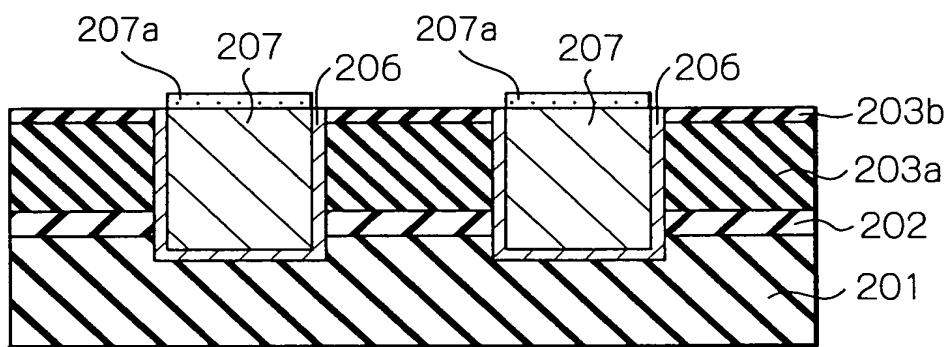


Fig. 10H

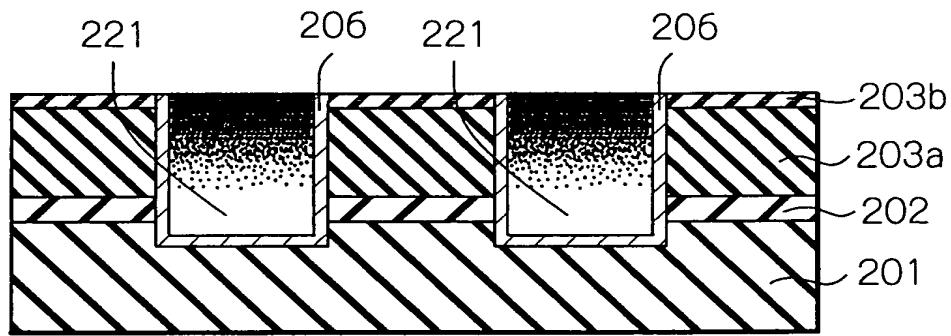


Fig. 10I

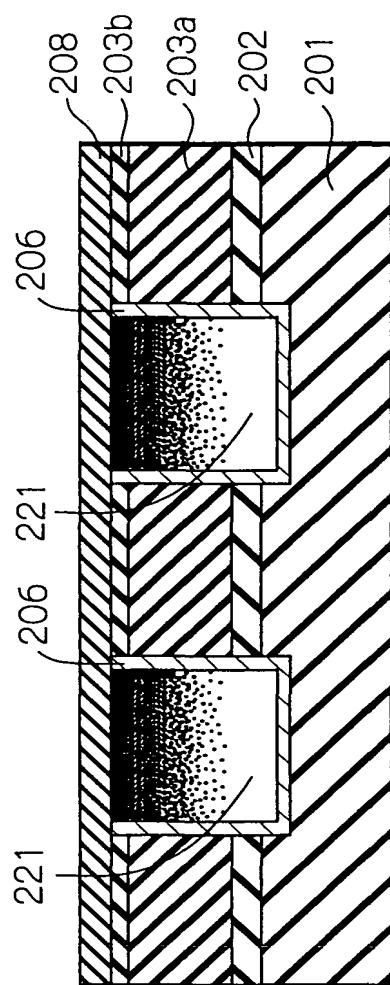


Fig. 10J

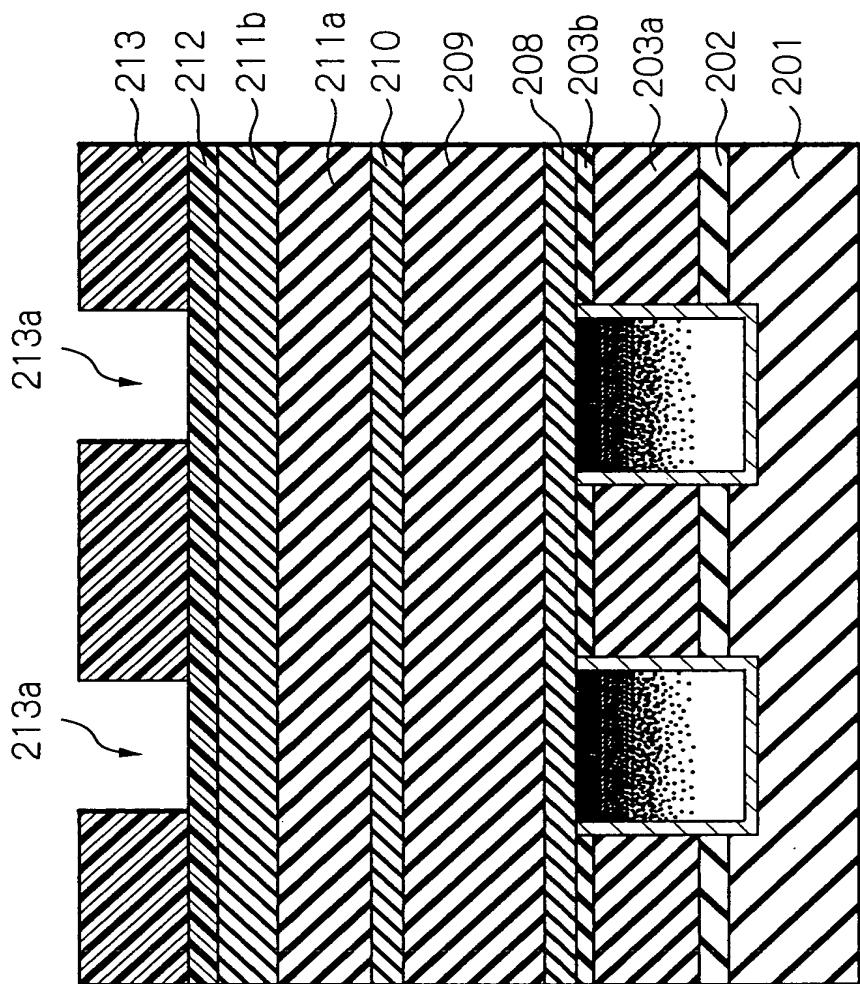
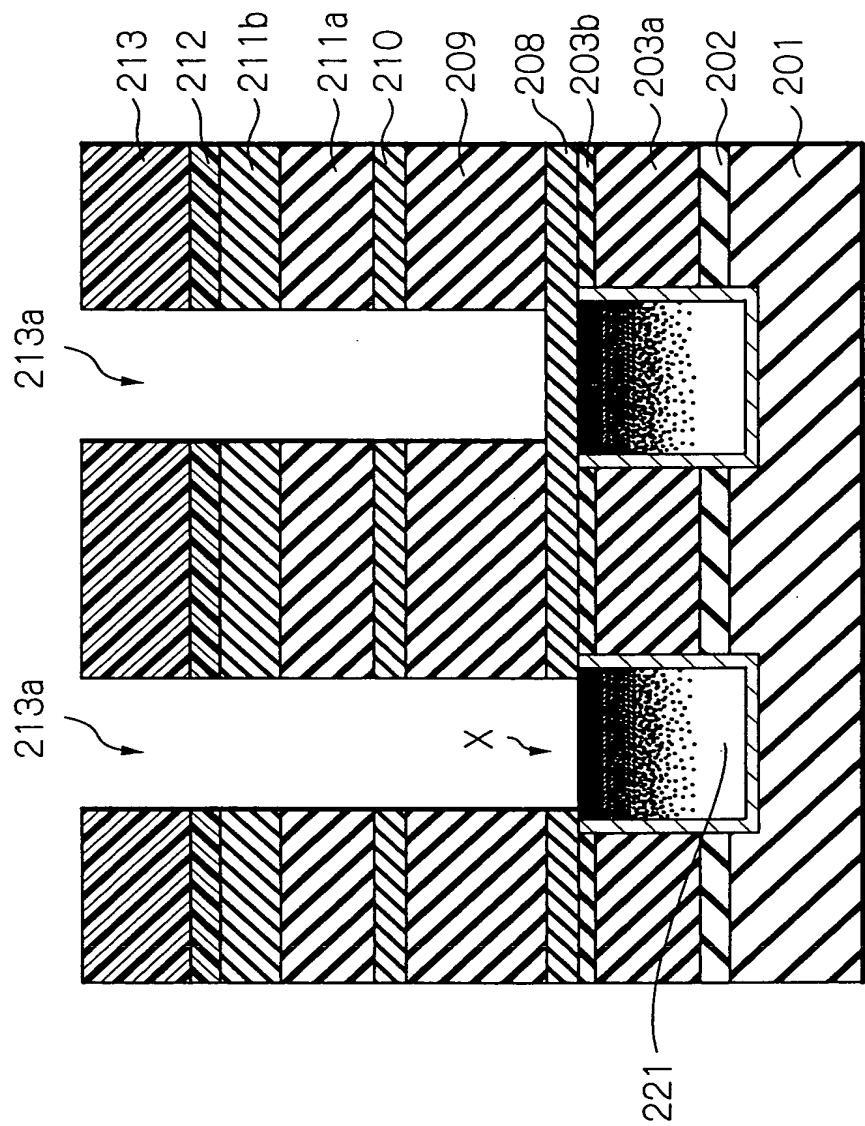


Fig. 10K



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Fig. 10L

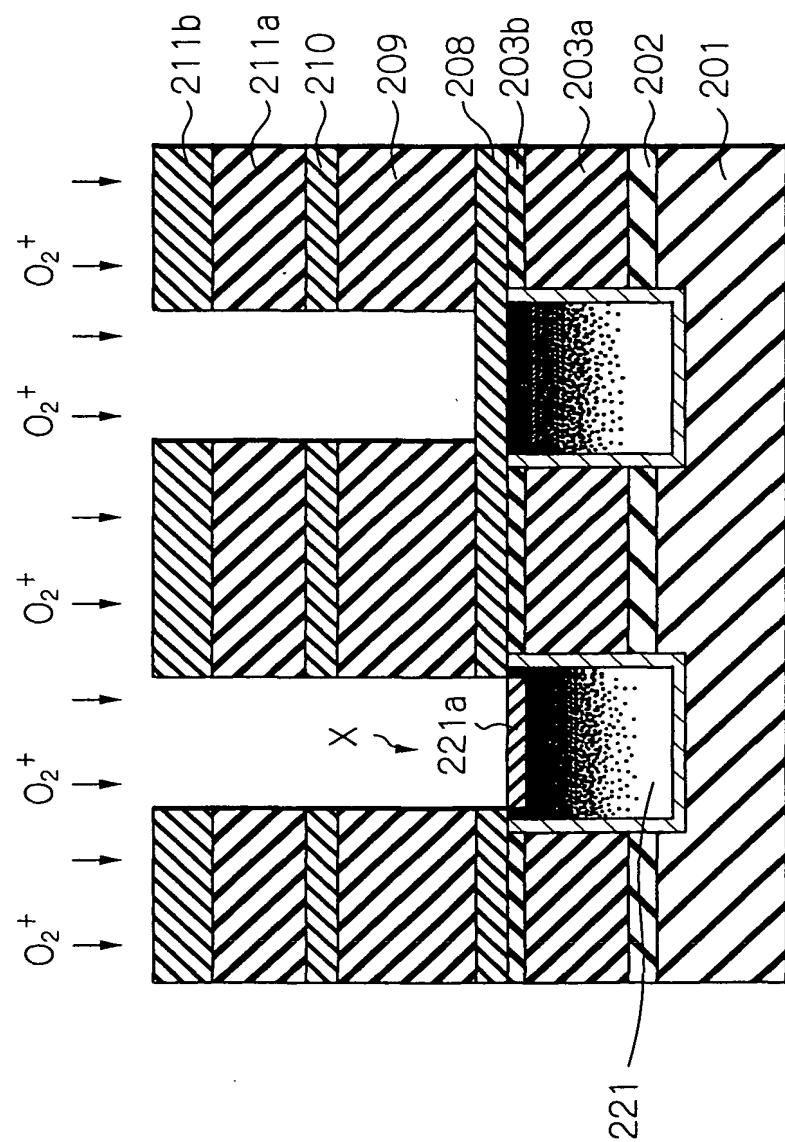


Fig. 10M

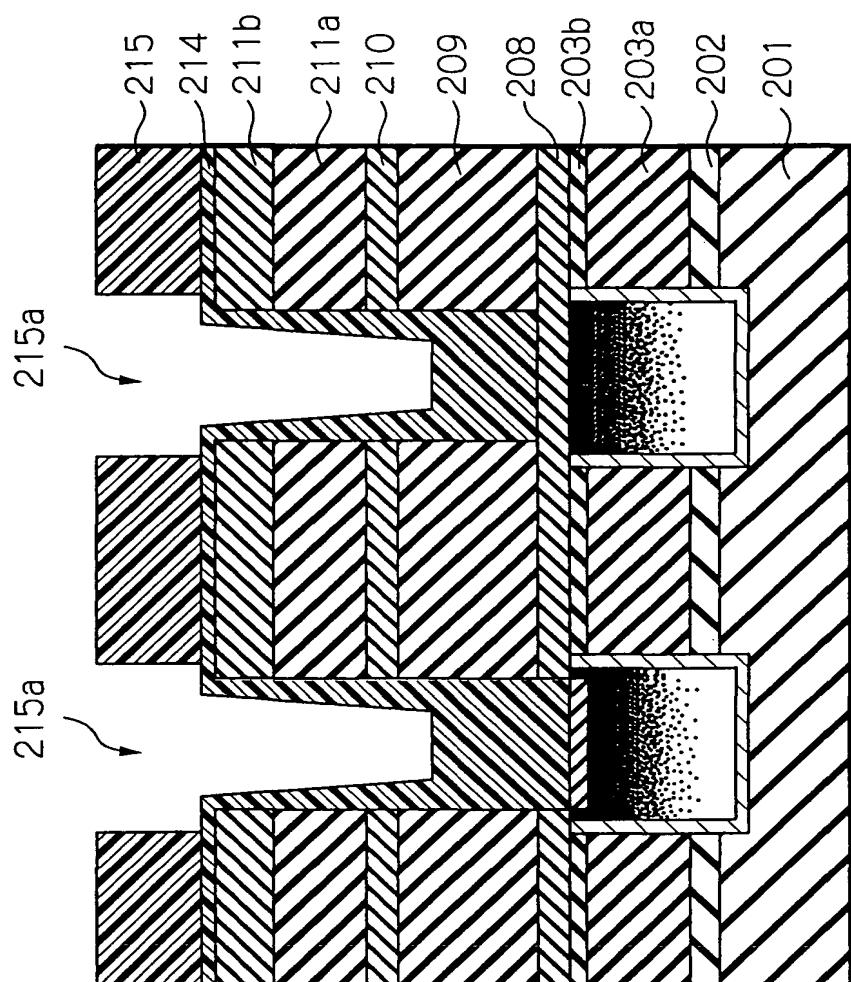
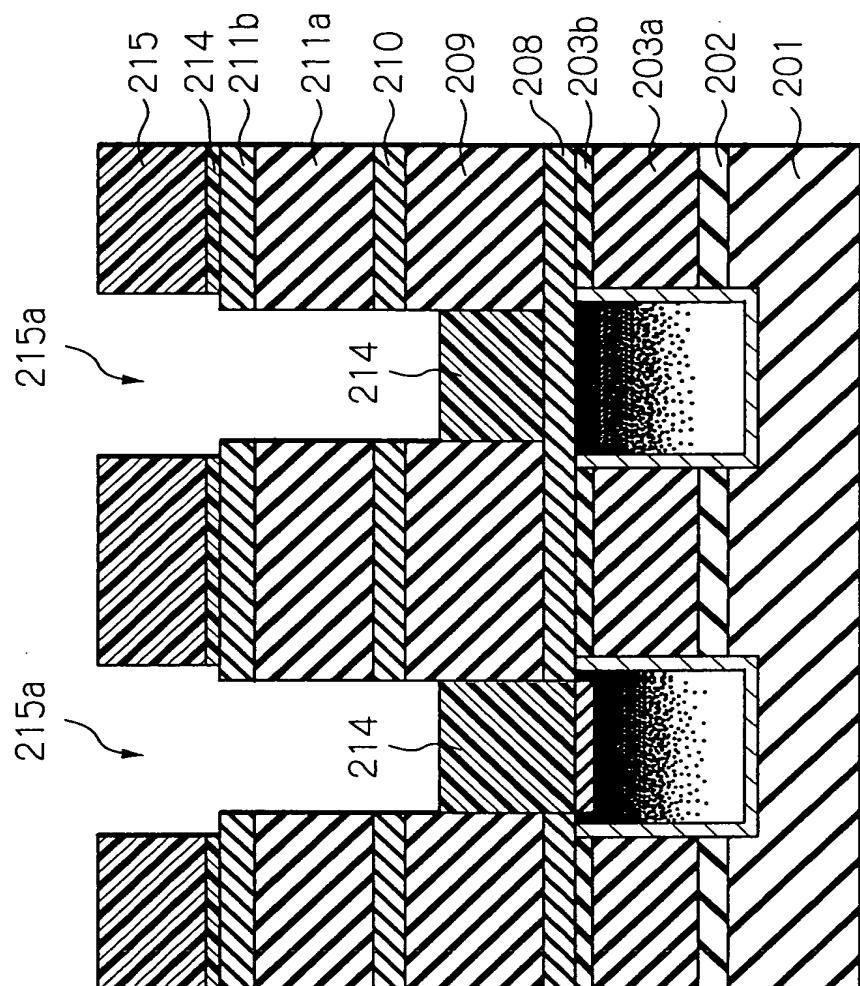
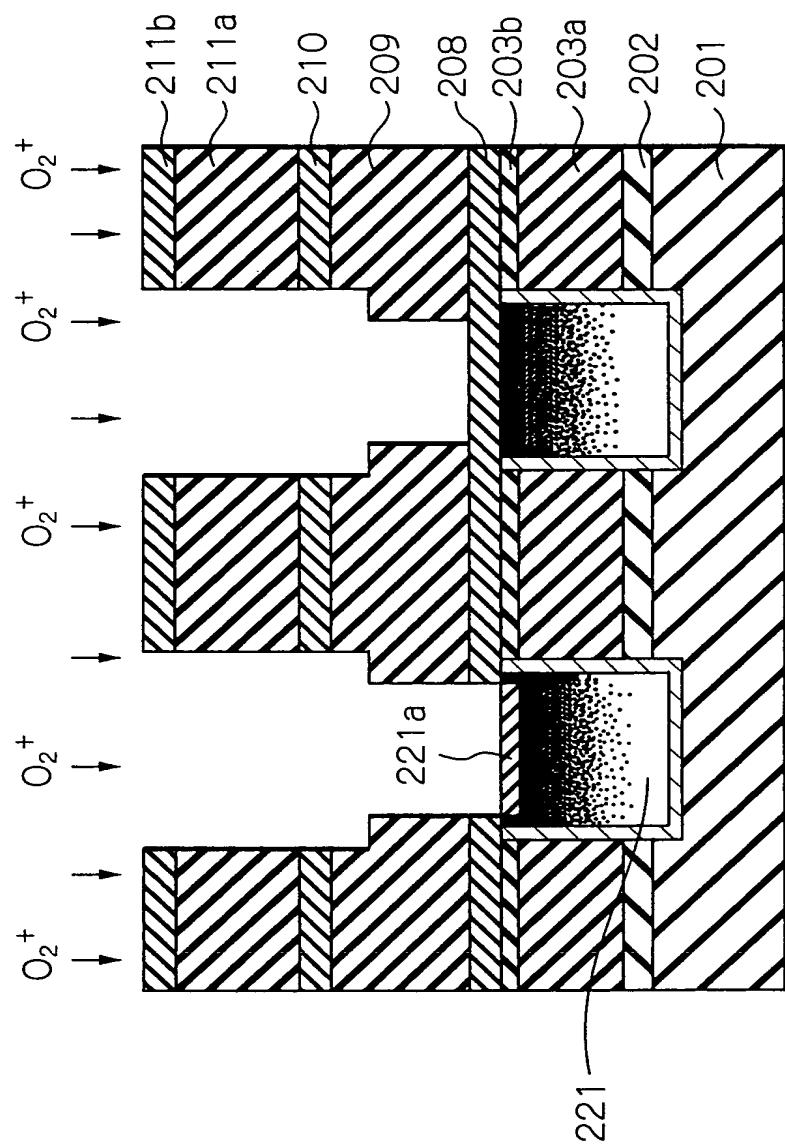


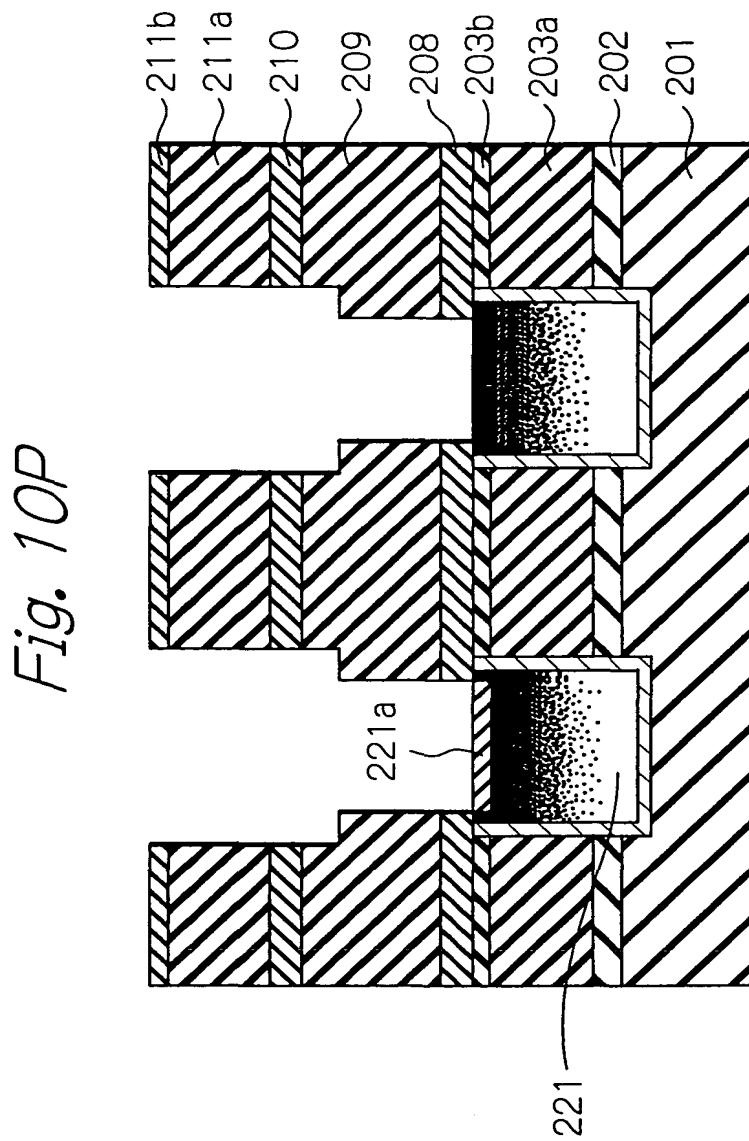
Fig. 10N



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Fig. 100





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Fig. 10Q

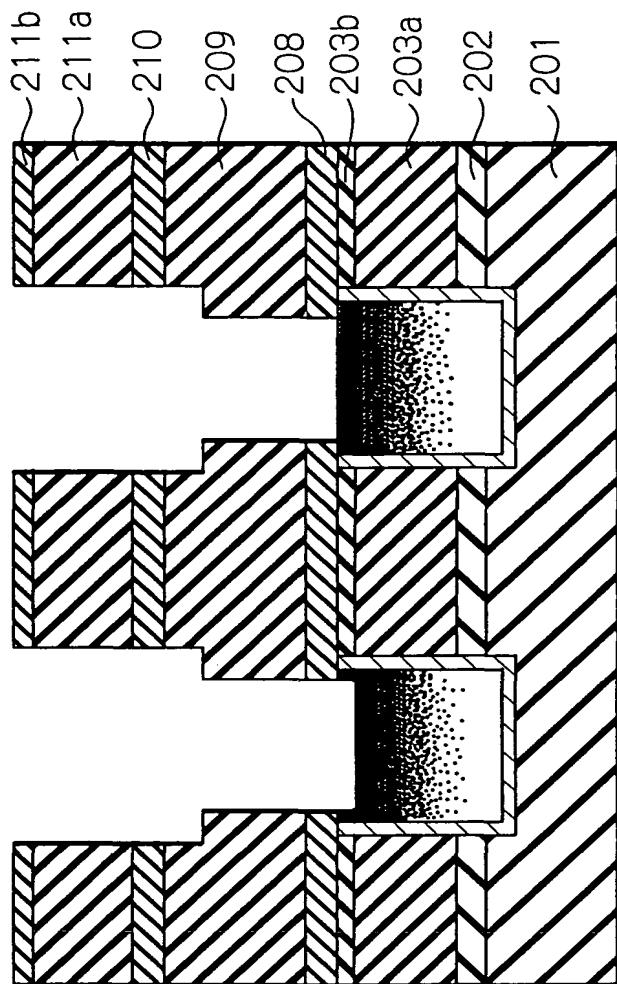
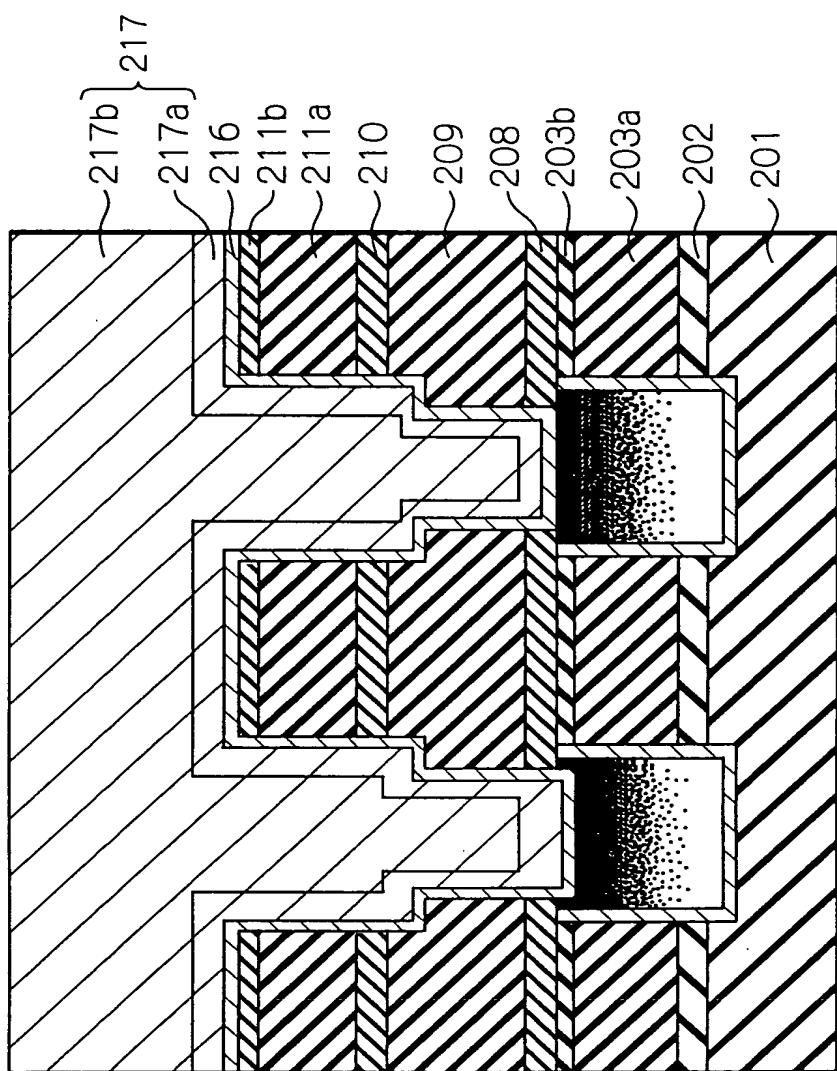


Fig. 10R



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Fig. 10S

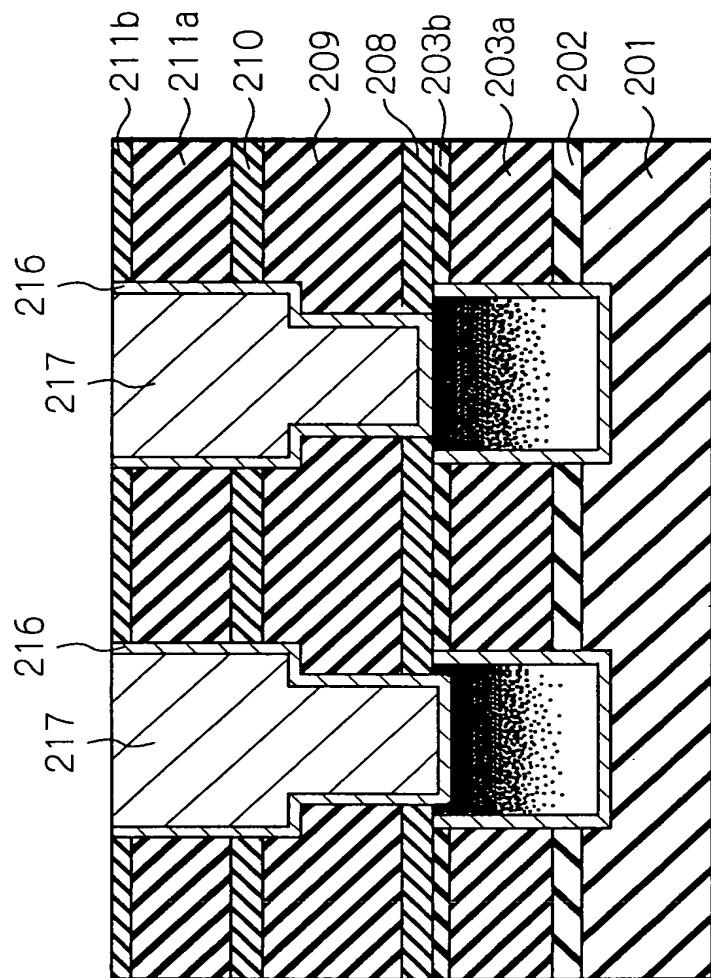
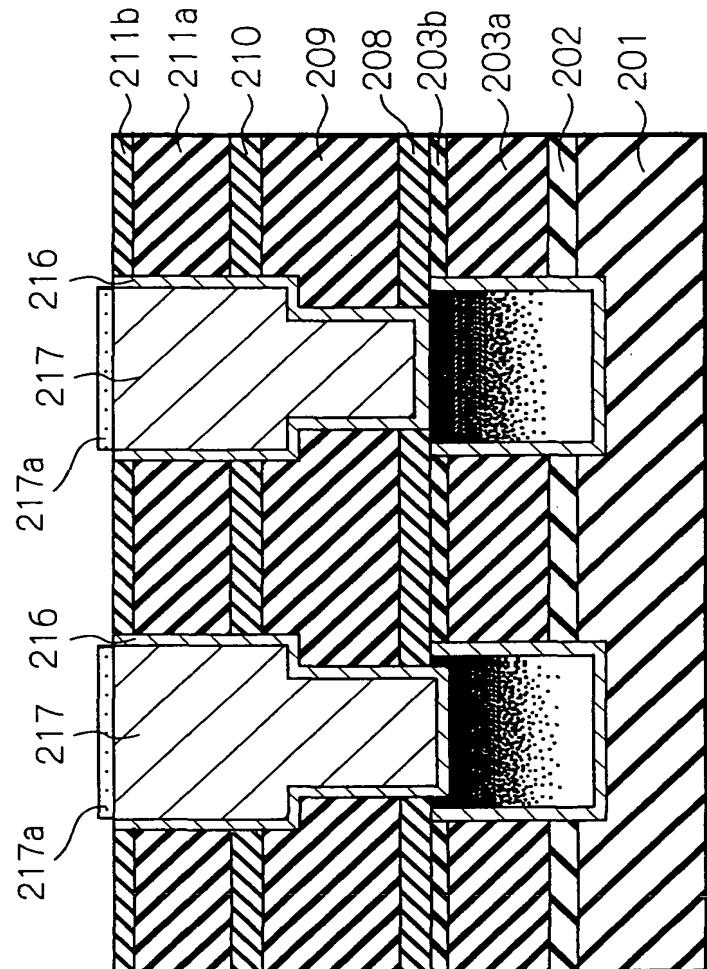
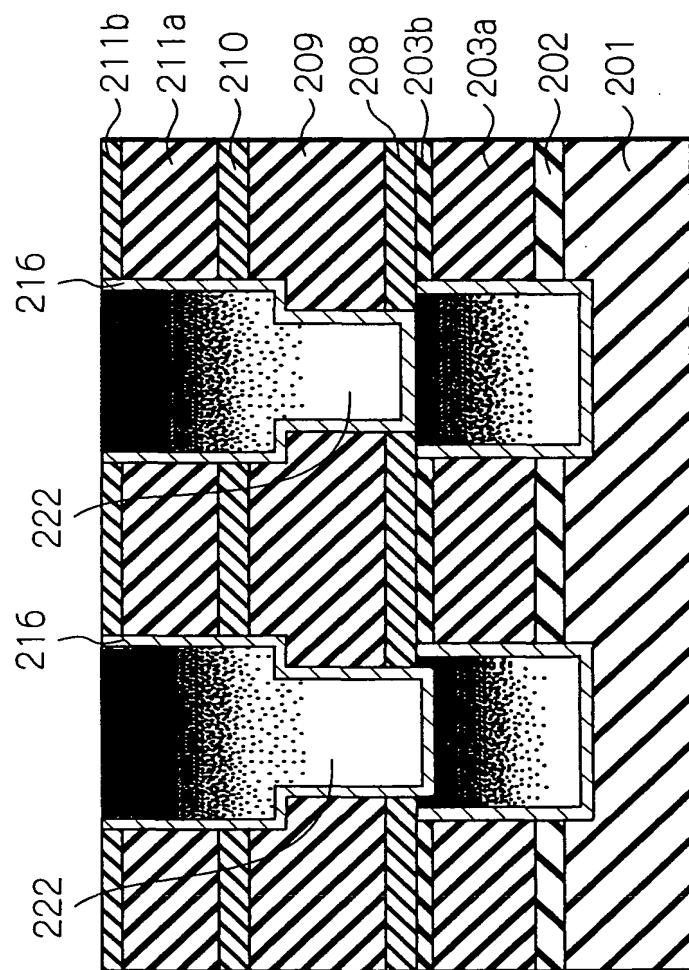


Fig. 10T



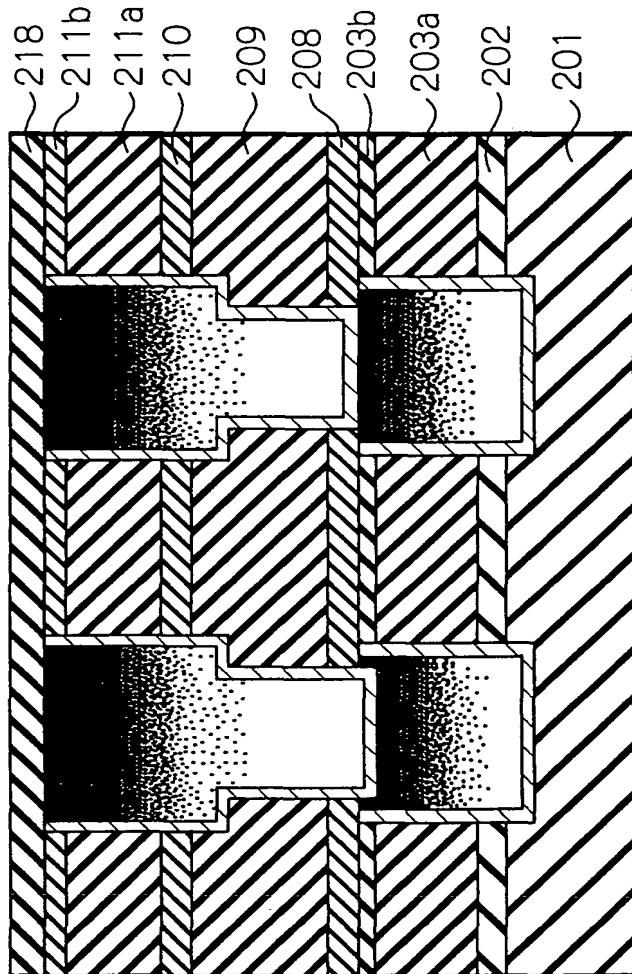
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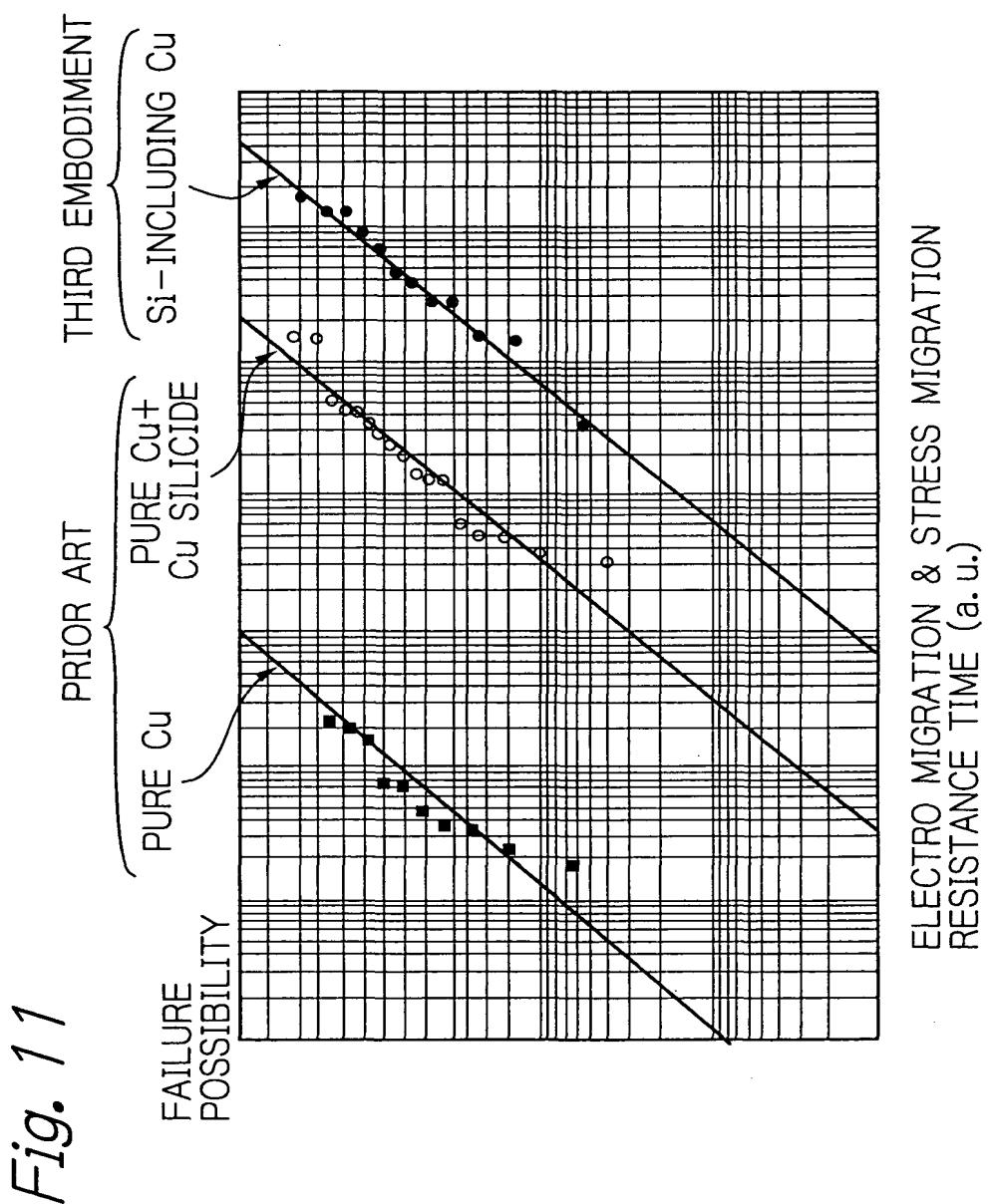
Fig. 10U



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Fig. 10V





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Fig. 12

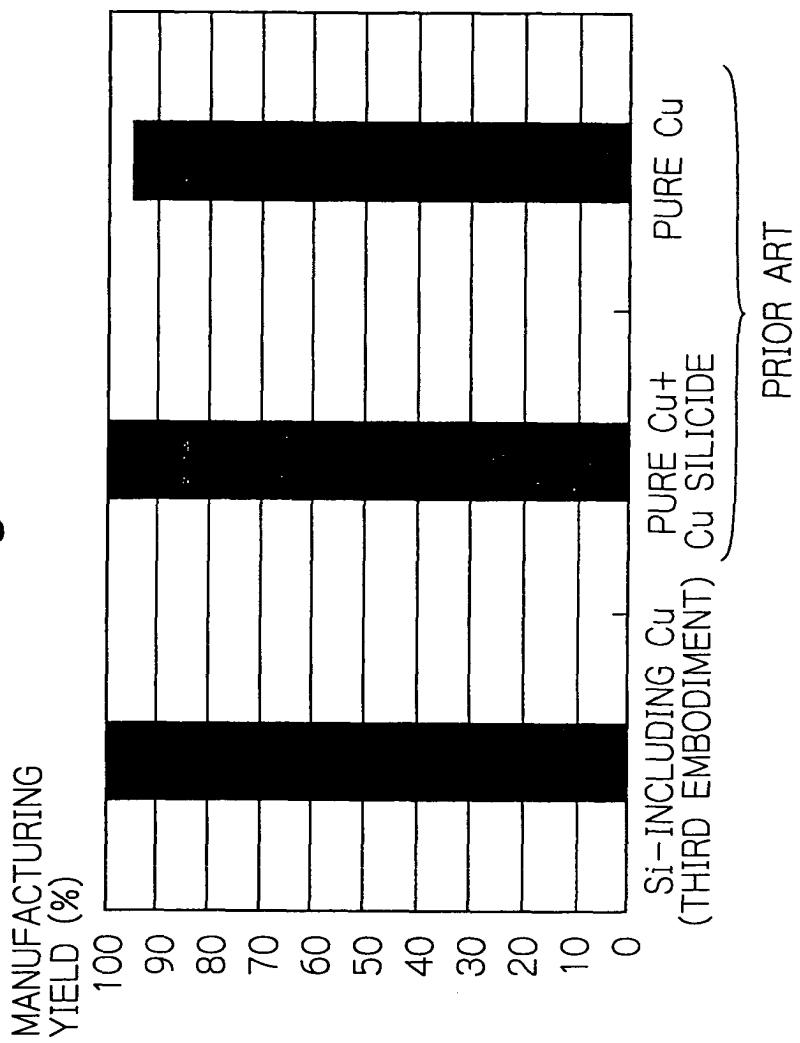


Fig. 13A

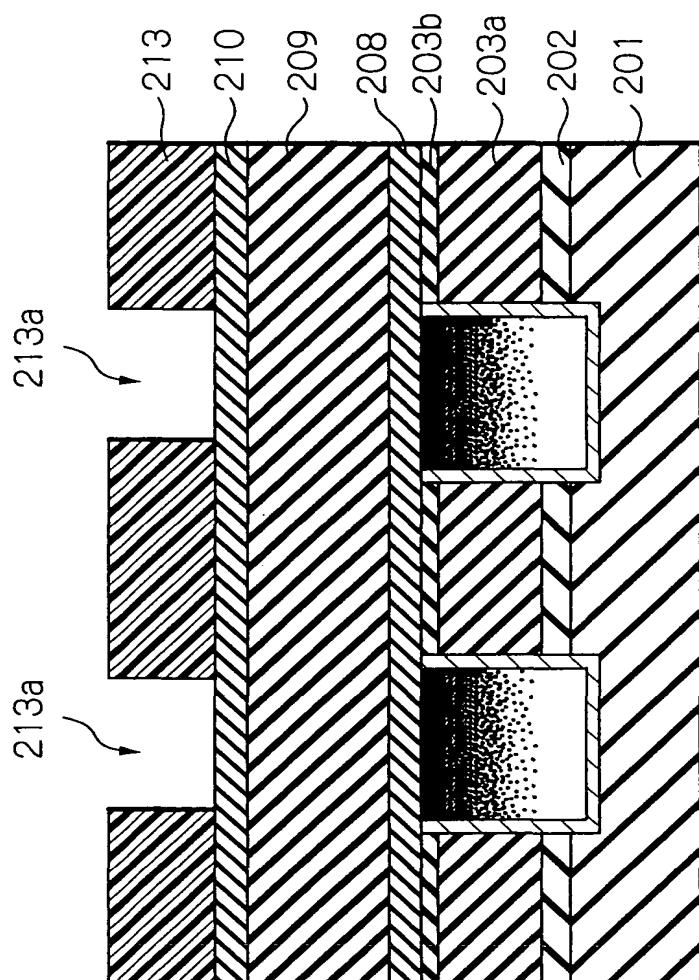
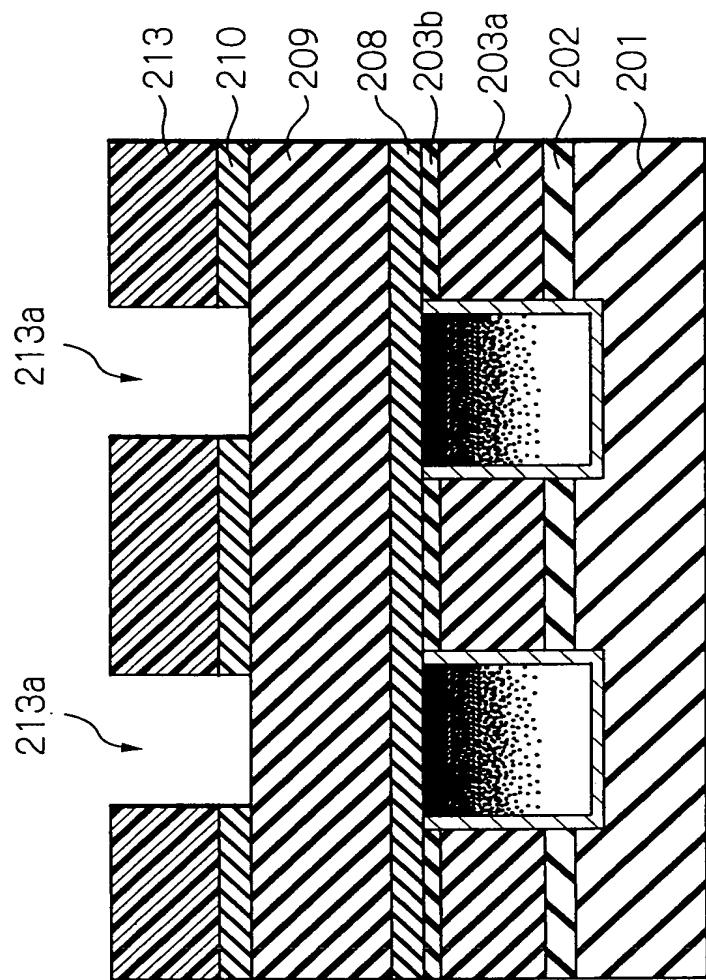


Fig. 13B



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Fig. 13C

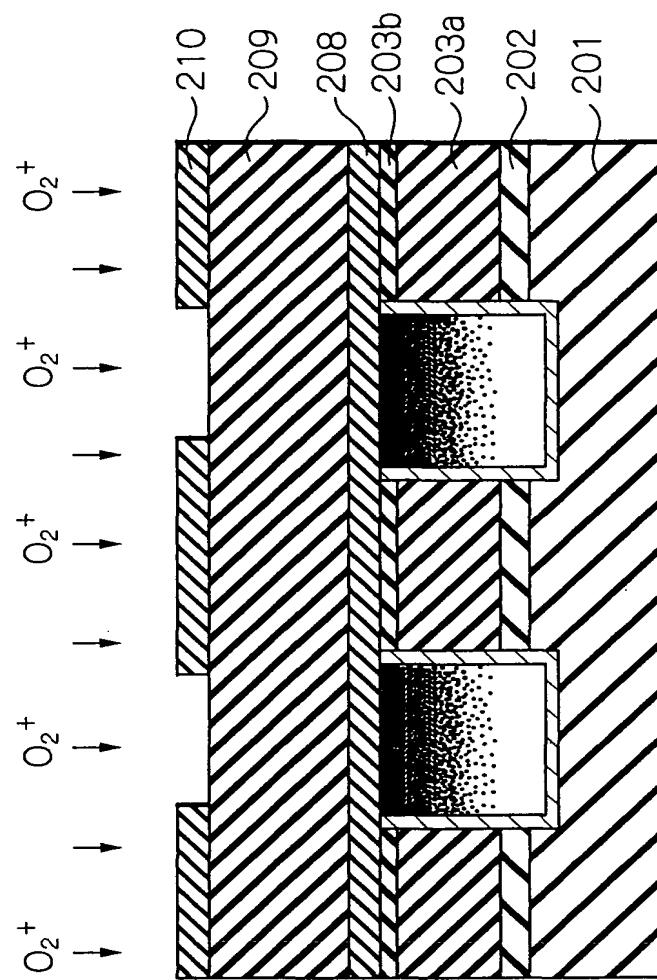
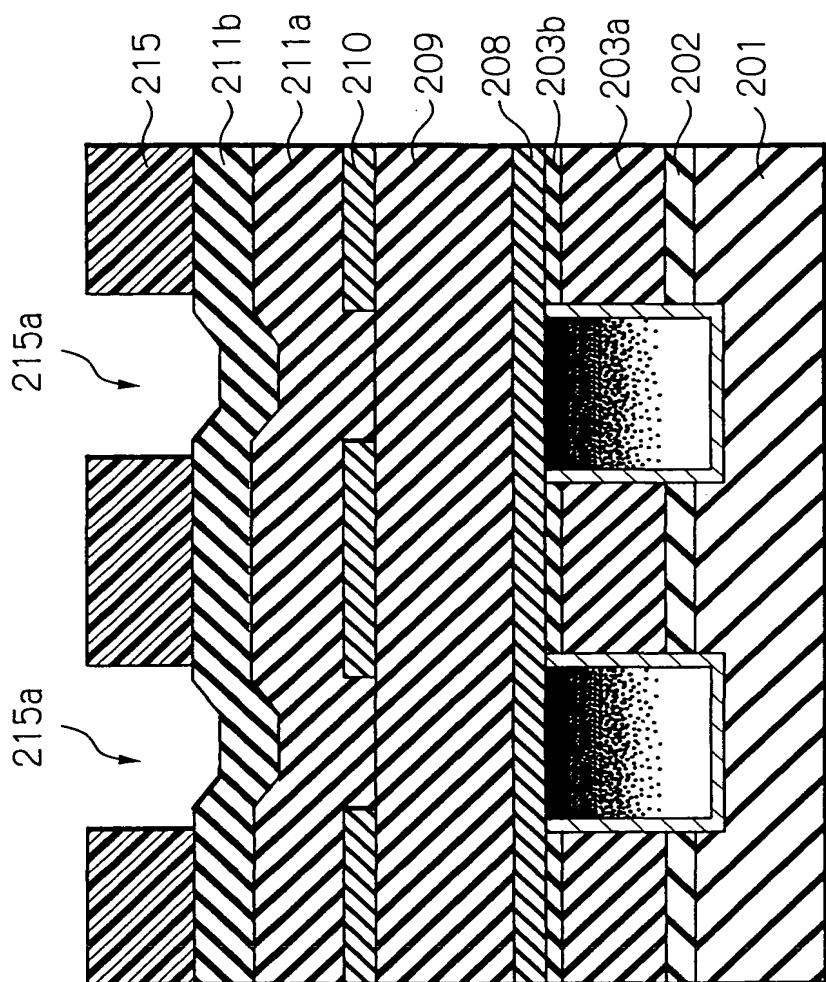
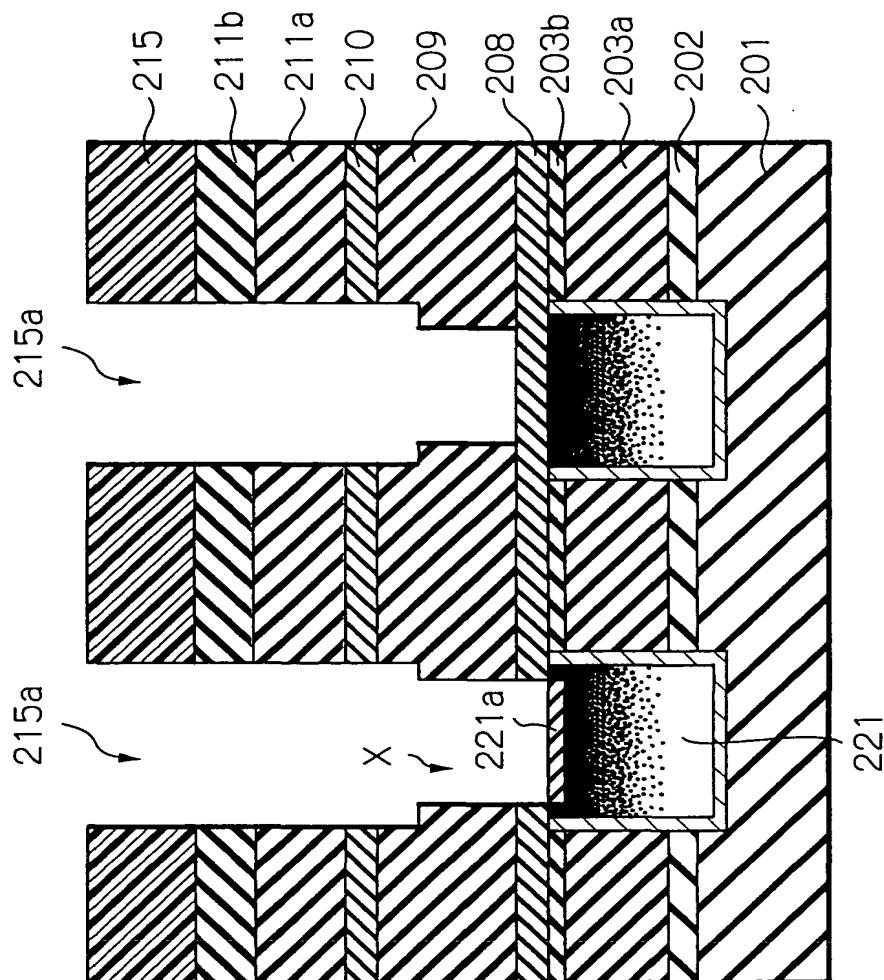


Fig. 13D



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Fig. 13E



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87

Fig. 13F

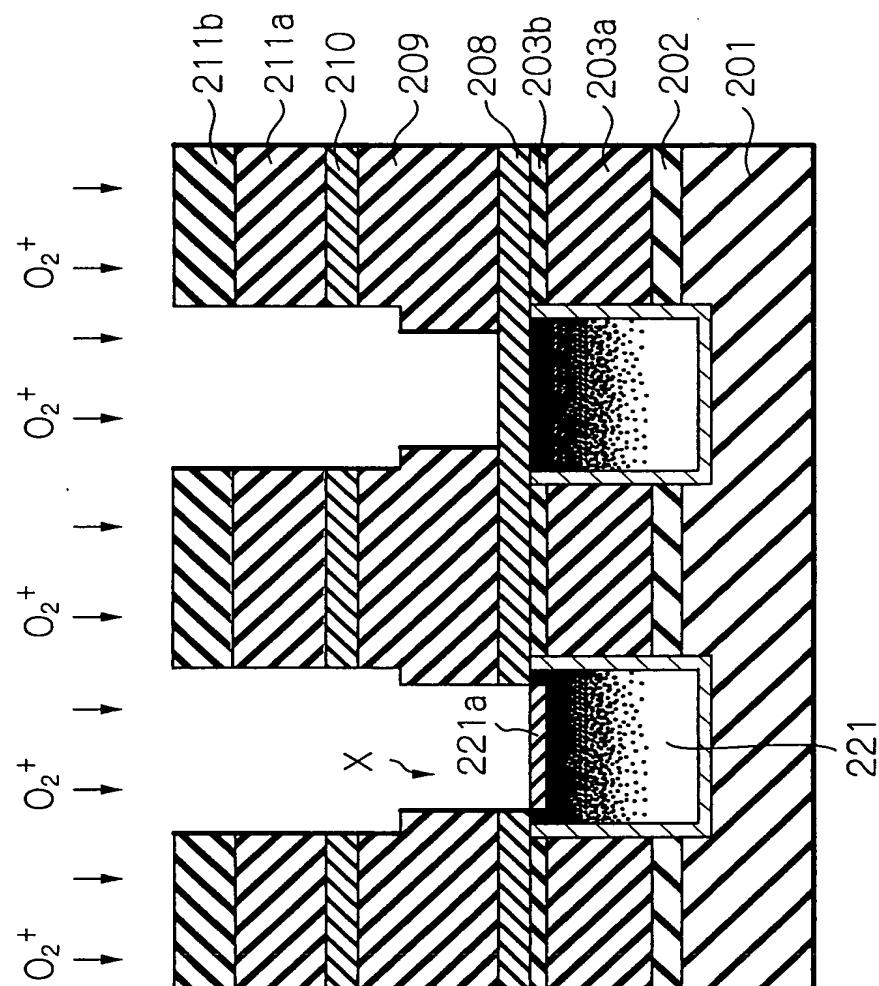
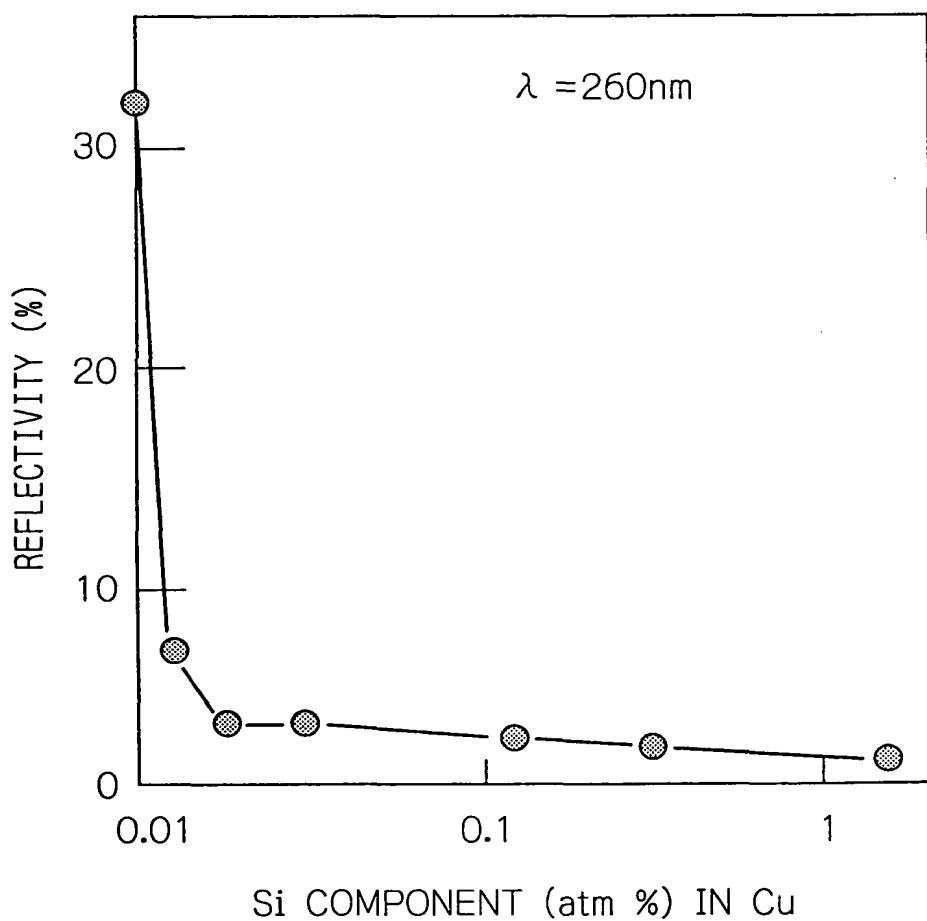
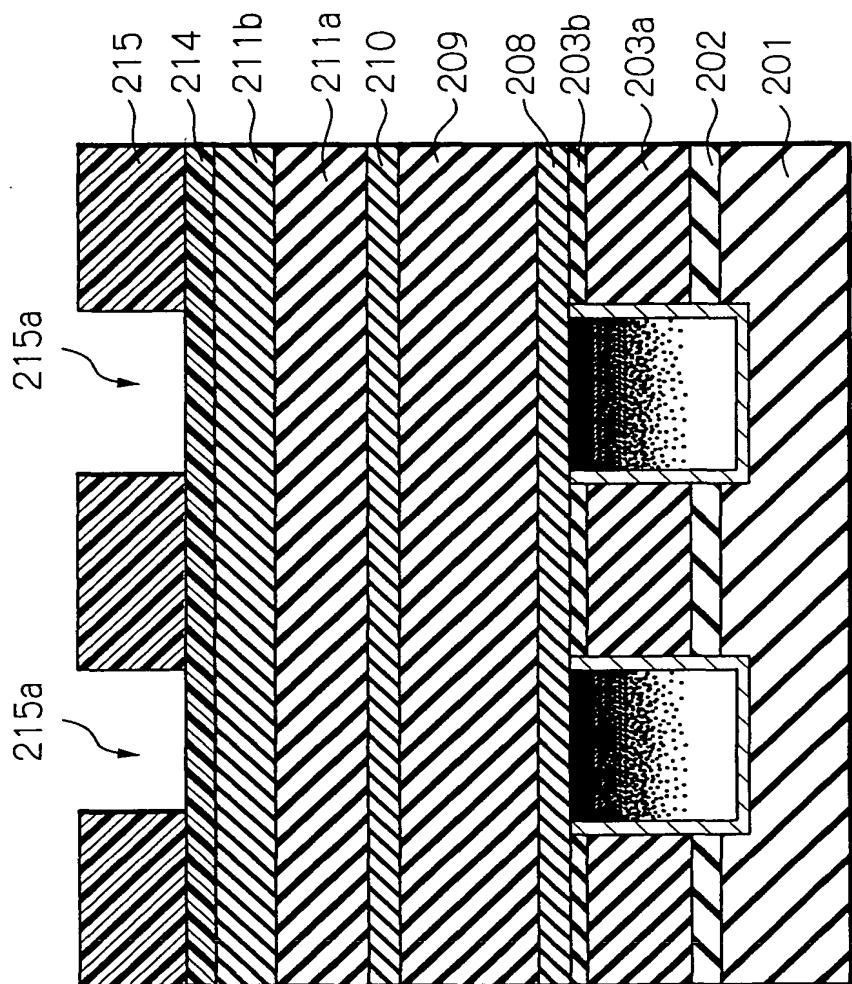


Fig. 14



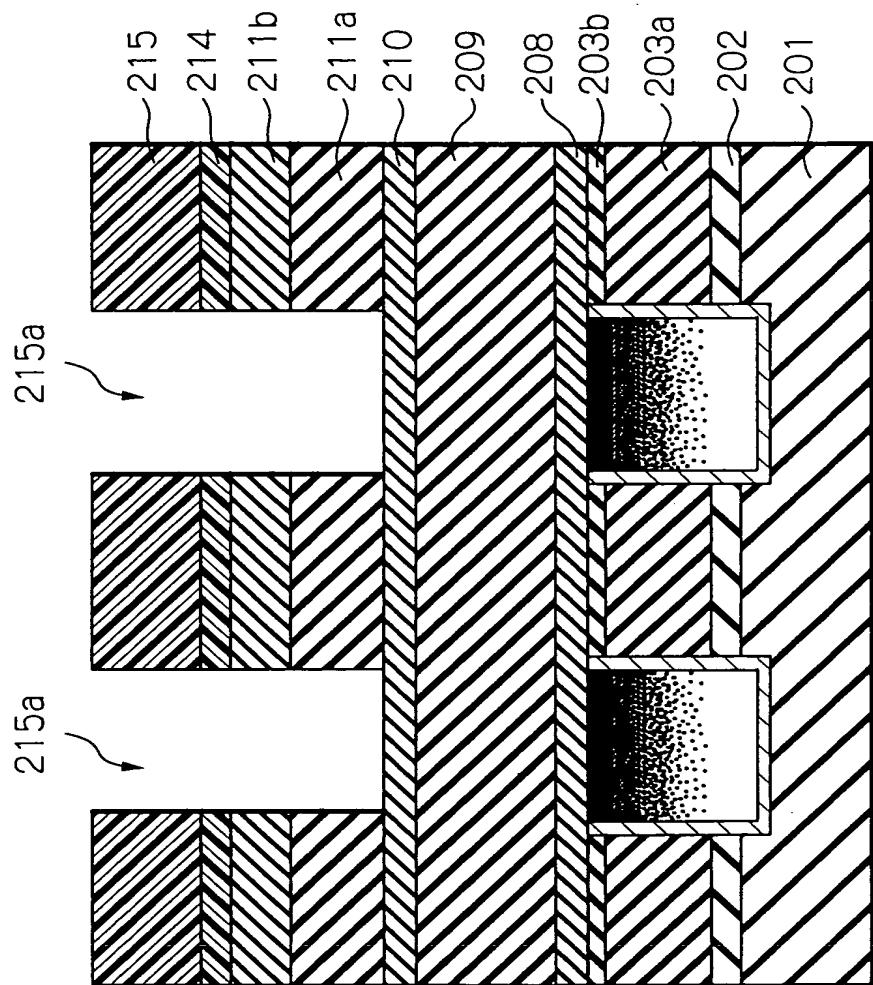
75/
87

Fig. 15A



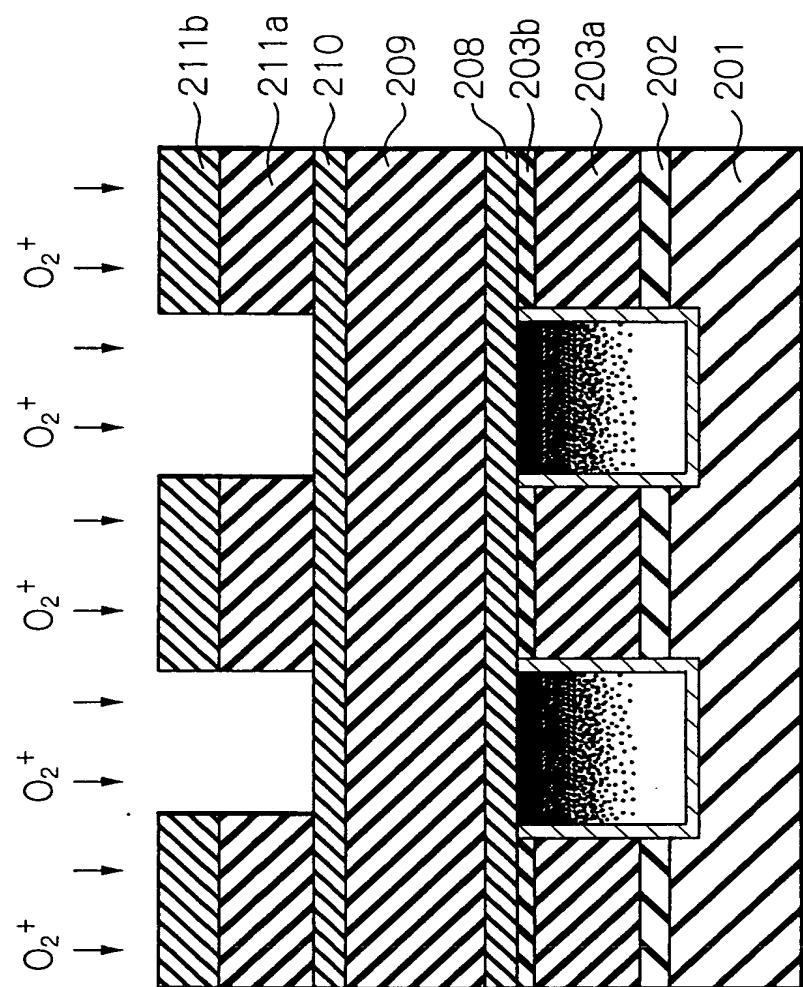
76/87

Fig. 15B



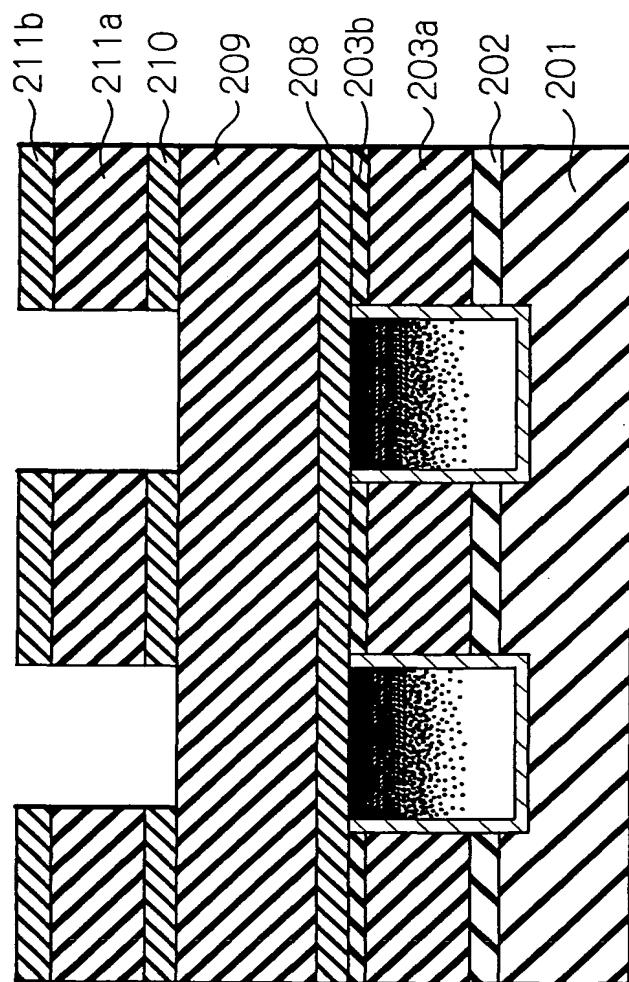
77
87

Fig. 15C



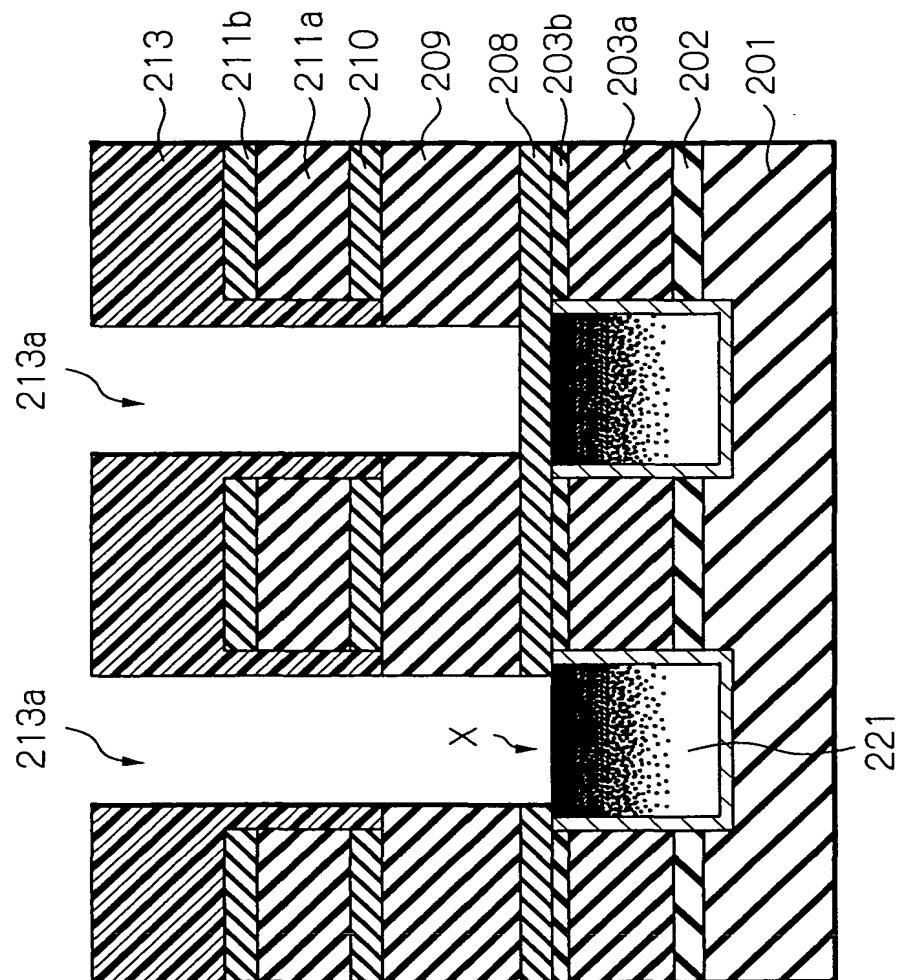
78/
87

Fig. 15D



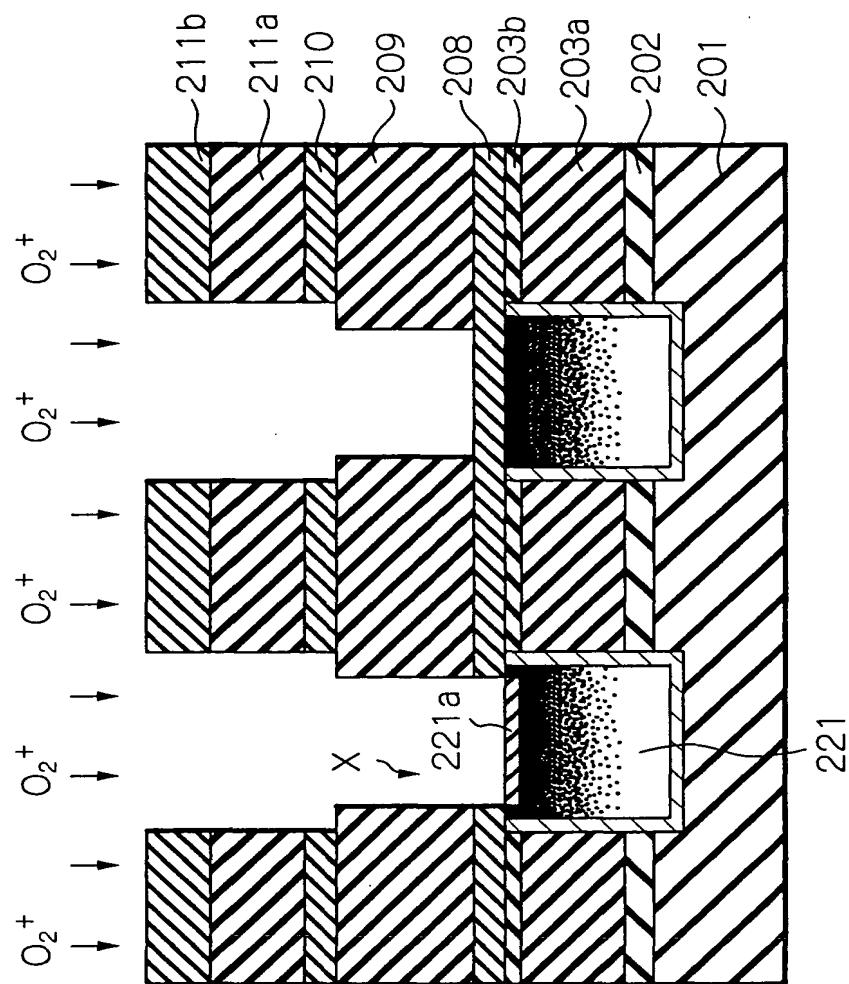
79
87

Fig. 15E



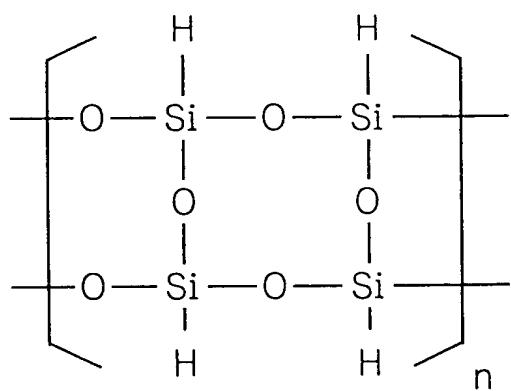
80
87

Fig. 15F



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Fig. 16A



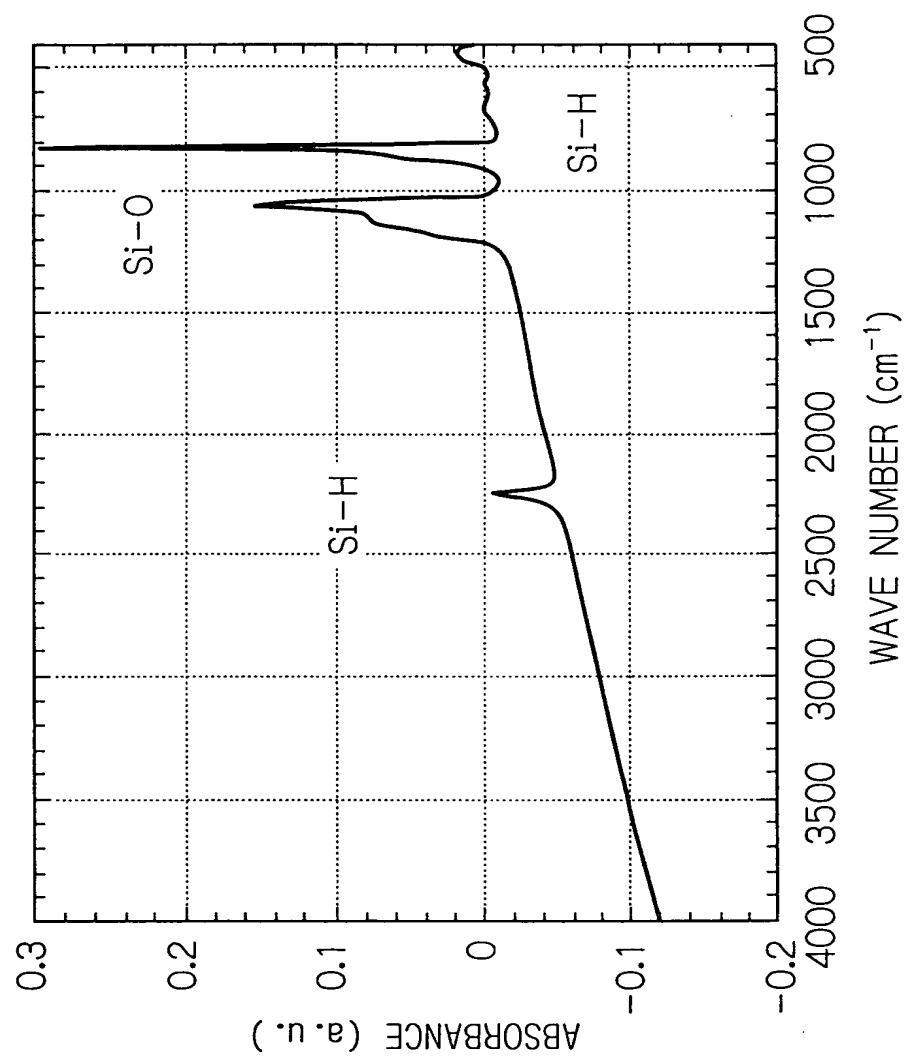
82
87

Fig. 16B

DIELECTRIC CONSTANT	2.9 at 1MHz
REFRACTIVE INDEX	1.39 at 633nm
STRESS	7.00E+08 dyne/cm ²
HARDNESS	0.9 Gpa
SHEAR MODULUS	6 Gpa
THERMAL EXPANSION RATIO	18 ppm/deg-C
GLASS TRANSITION POINT	none
THERMAL CONDUCTIVITY RATIO	0.31 W/mk@25deg-C

83
87

Fig. 16C



84
87

Fig. 16D

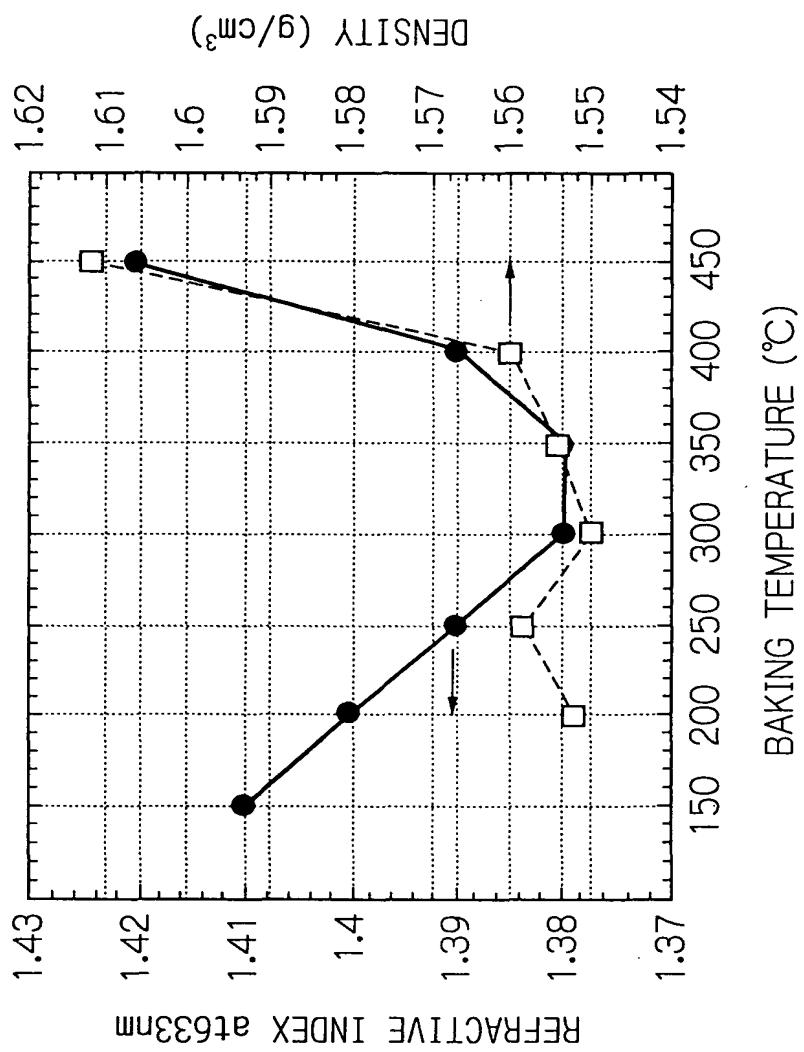


Fig. 17

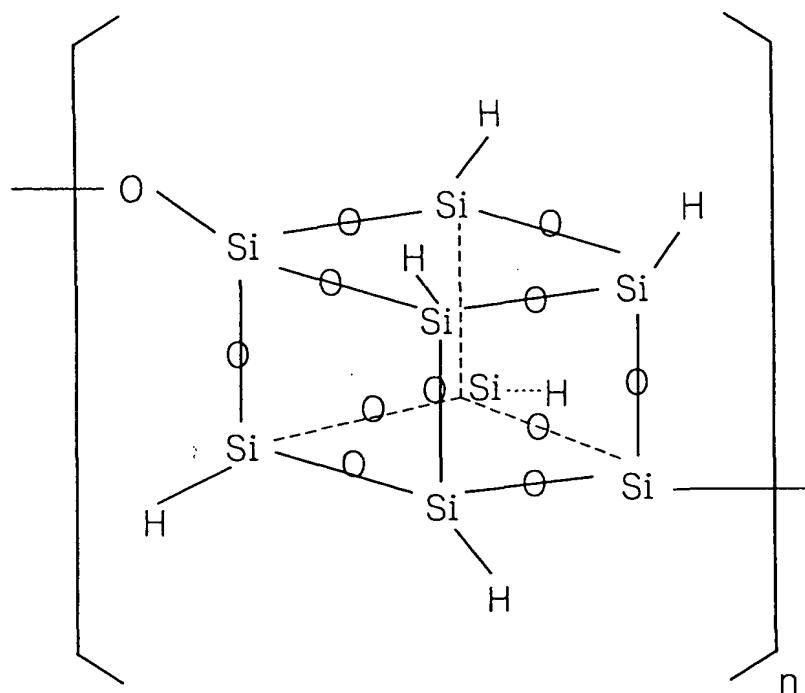
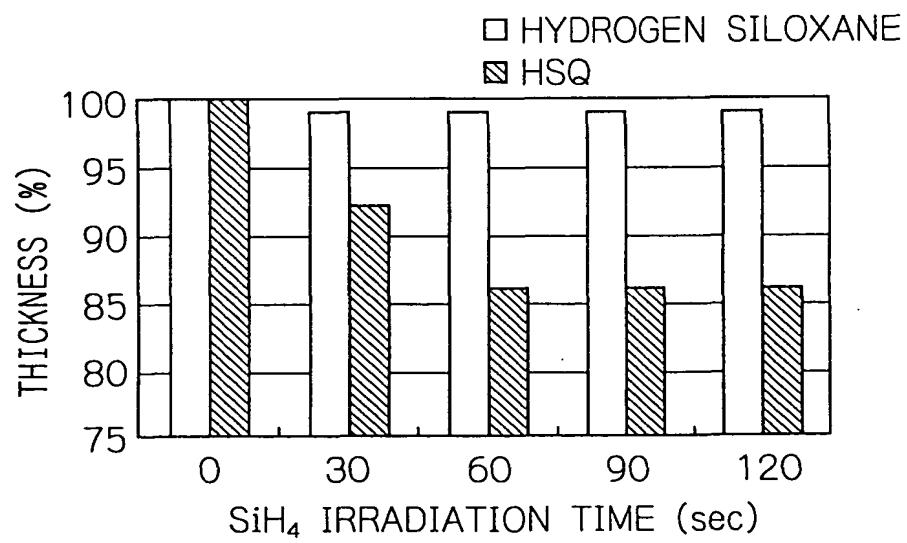


Fig. 18



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87

Fig. 19

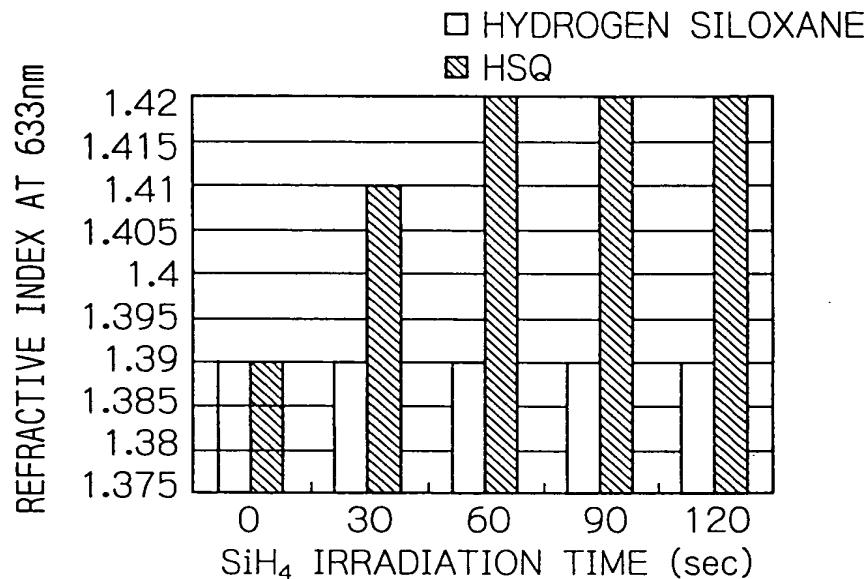
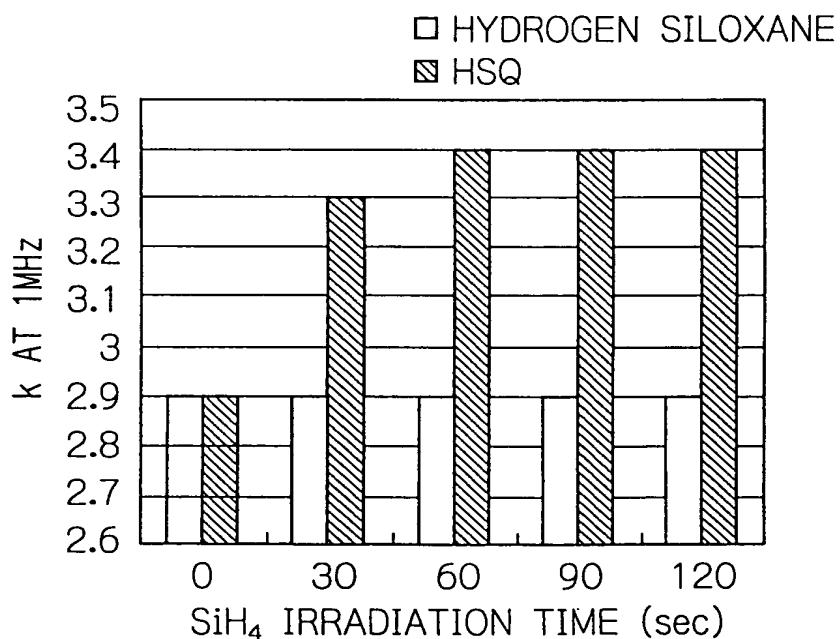


Fig. 20



87/
87

Fig. 21A

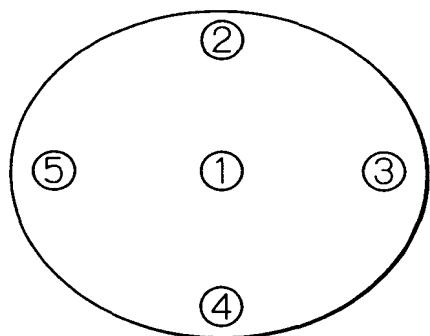


Fig. 21B

	①	②	③	④	⑤
HYDROGEN SILOXANE	957	981	915	922	932
HSQ	1198	1232	1007	1101	1058

(Å)